

ATTACK BOMBER



# HS. 129

STRAIGHT  
LEADING EDGE →

↑  
NARROW  
TAIL PLANE

↑  
NACELLES PROJECT  
WELL FORWARD

SCALE  
6-FOOT MAN

HENSCHEL  
GERMANY

**DISTINGUISHING FEATURES:** Twin-engine, low-wing monoplane. The two radial engines are underlung and project forward nearly as far as the nose. Wings have straight leading edge, tapered trailing edge, and blunt tips. Fuselage tapers to point at tail and has gun trough below extending slightly forward of wing. Nose is broad and slopes sharply to point from pilot's cockpit. Tailplane tapers very slightly and has round tips. Prominent single fin and rudder with broad rounded top.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** The HS. 129 is the standard ground-attack airplane of the German Air Force. It was developed for close cooperation with the Army and is noted for its heavy armor and armament. Originally fitted with Argus air-cooled "V" engines, the HS. 129 is now fitted with Gnome-Rhone air-cooled radial engines. It may be seen with bomb rack in place of gun trough below fuselage.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

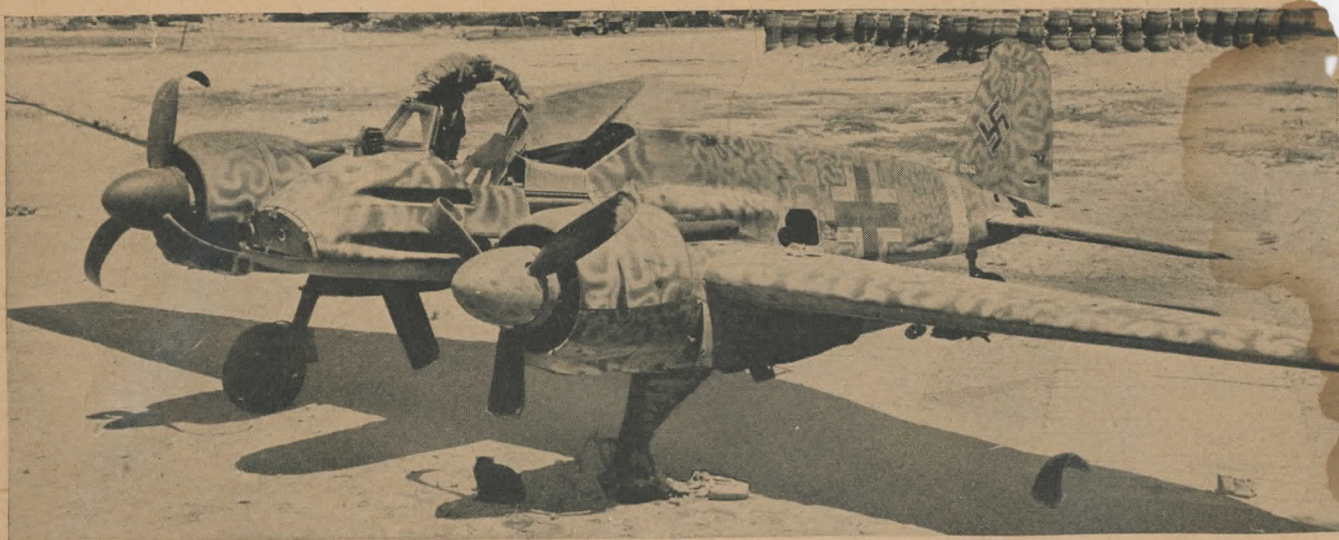


**SPAN:** 44 ft. 6 in. **SERVICE CEILING:**  
**LENGTH:** 33 ft. 3 in. 24,500 ft. with normal load  
**MAX. SPEED:** 275 m. p. h. at 9,000 ft.

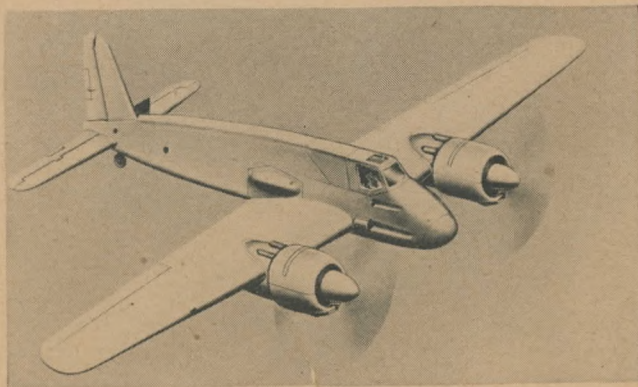
**RESTRICTED**



A



B



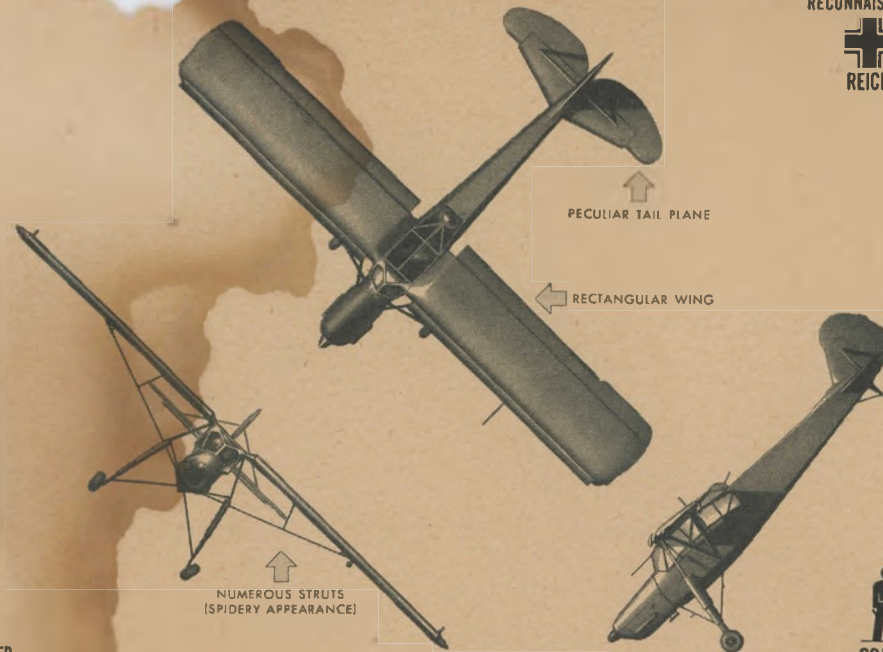
C



RECONNAISSANCE



Fl. 156



↑  
PECULIAR TAIL PLANE

←  
RECTANGULAR WING

↑  
NUMEROUS STRUTS  
(SPIDERY APPEARANCE)



SCALE  
6-FOOT MAN

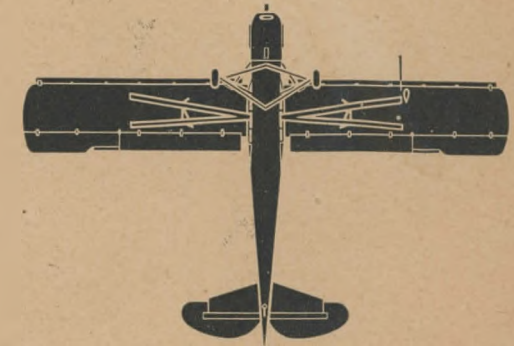
FIESELER  
GERMANY

**DISTINGUISHING FEATURES:** Single-engine, high-wing monoplane. Slim nose and fuselage. Straight, rectangular-shaped wings braced with V struts. Large glazed canopy. The elevators are curved with a large cut-out in the center at the trailing edge. Fixed landing gear with long stork-like legs.

**INTEREST:** The "Storch" is used primarily for light communications work. It is about the nearest approach to an autogyro that is possible with fixed wings. It can maintain flight at 31 m. p. h. and lands at 25 m. p. h. The maximum landing run using brakes is only 30 yards. The plane is equipped with full-span leading edge slots which may be of a fixed or movable type. Large camber-changing flaps aid slow landings. This aircraft received mention for a landing in a small public park in Paris. General Montgomery used a captured "Storch" for some time in Libya.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT CNE WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3



**SPAN:** 46 ft. 10 in.

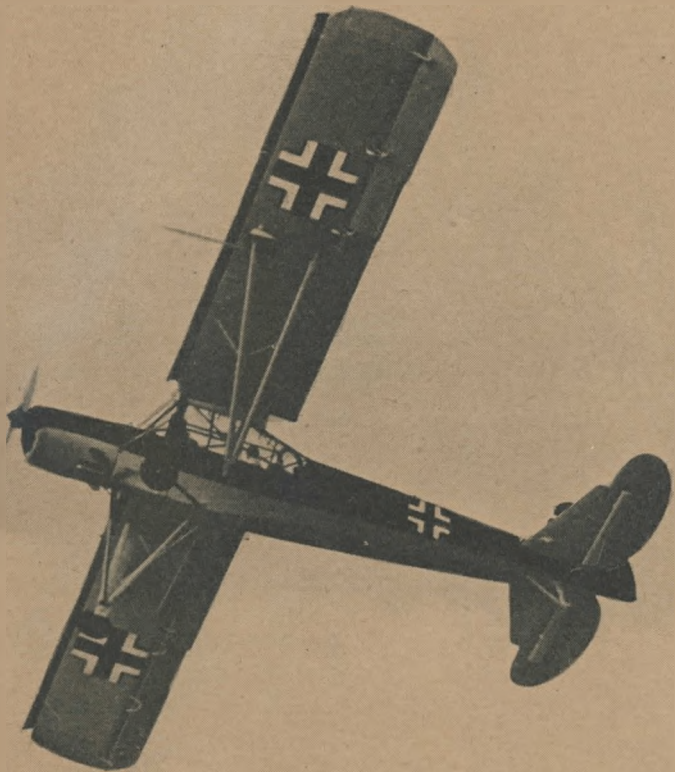
**LENGTH:** 32 ft. 6 in.

**MAX. SPEED:** 145 m. p. h. at 3,000 ft.

**SERVICE CEILING:**  
17,000 ft.

**RESTRICTED**

A



B

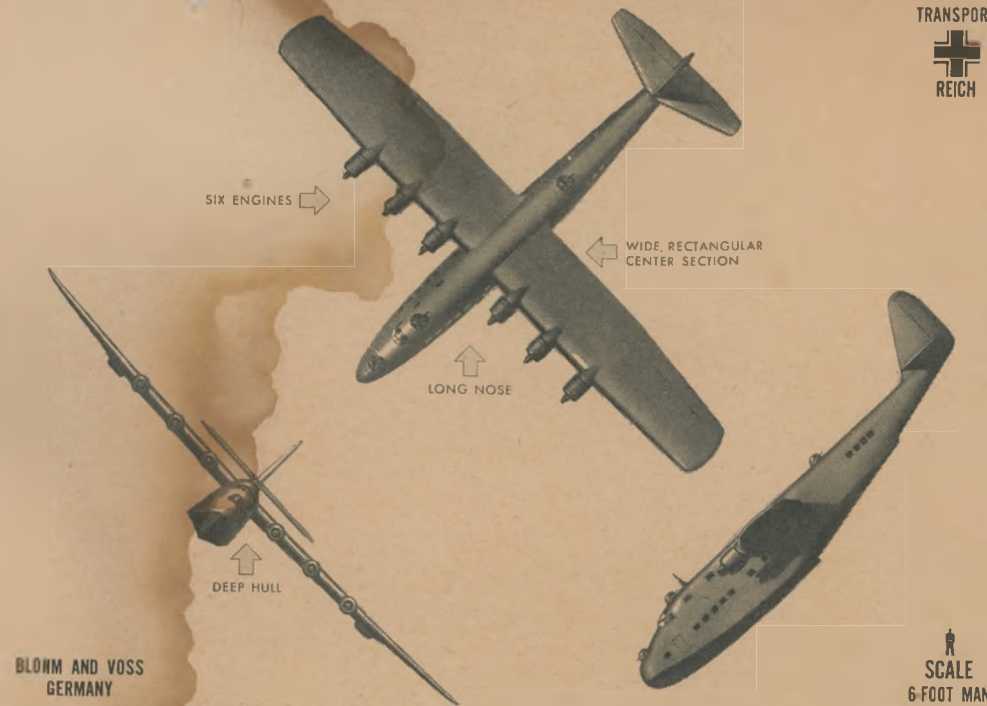


C





TRANSPORT  
  
 REICH



BLOHM AND VOSS  
 GERMANY

**DISTINGUISHING FEATURES:** Six-engine, high-wing monoplane. Inner sections of wings are straight while outer panels taper slightly to rather blunt tips. The two-step hull is long and deep with straight sides. Tall, single fin and rudder has tapered leading edge with curved trailing edge. Stabilizer is set on fin above fuselage. Wing tip floats retract inward into wing.

NOV. 1943  
 FROM DATA CURRENTLY AVAILABLE

**INTEREST:** The B. V. 222 is probably the largest aircraft, excluding gliders, produced for the German Air Force since the outbreak of the war. The number of these aircraft in service is likely to be small. This flying boat is used as a long-range transport and patrol plane and carries a crew of about 10. The seating capacity is believed to be about 65 men.

SUPPLEMENT ONE      WAR DEPARTMENT FM 30-30  
 NAVY DEPARTMENT BUAER 3

## B. V. 222

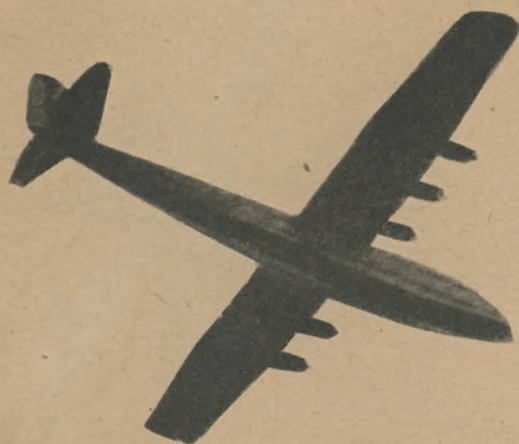


**SPAN:** 150 ft.      **SERVICE CEILING:**  
**LENGTH:** 115 ft.  
**MAX. SPEED:** 240 m. p. h. at 15,000 ft. (est.)

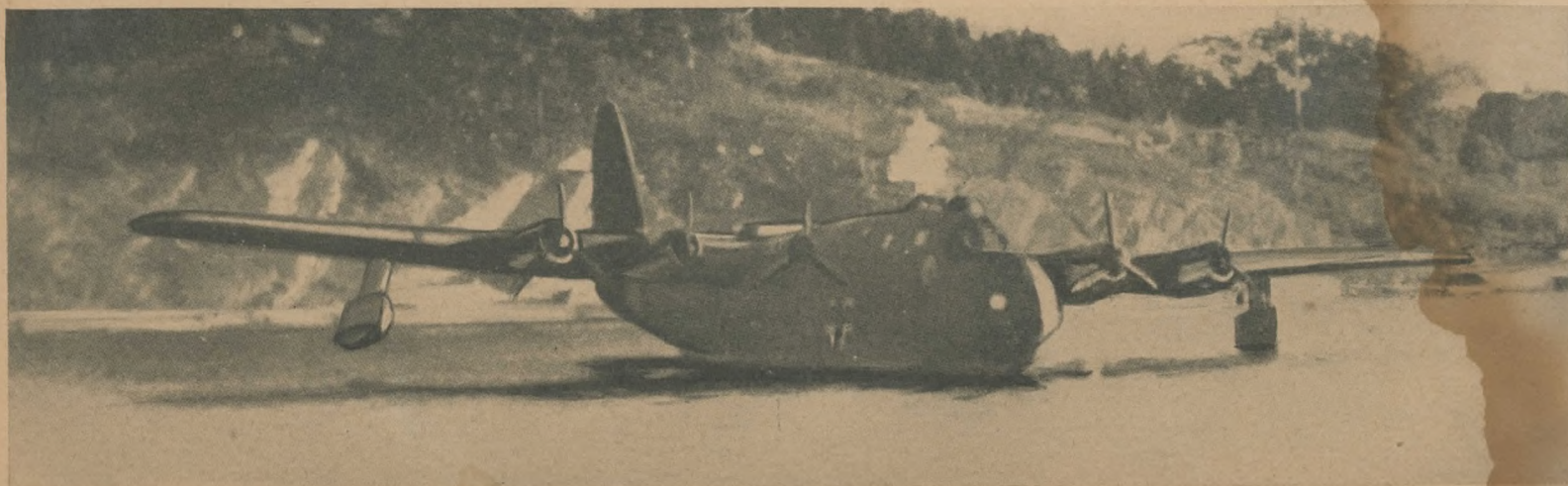
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A

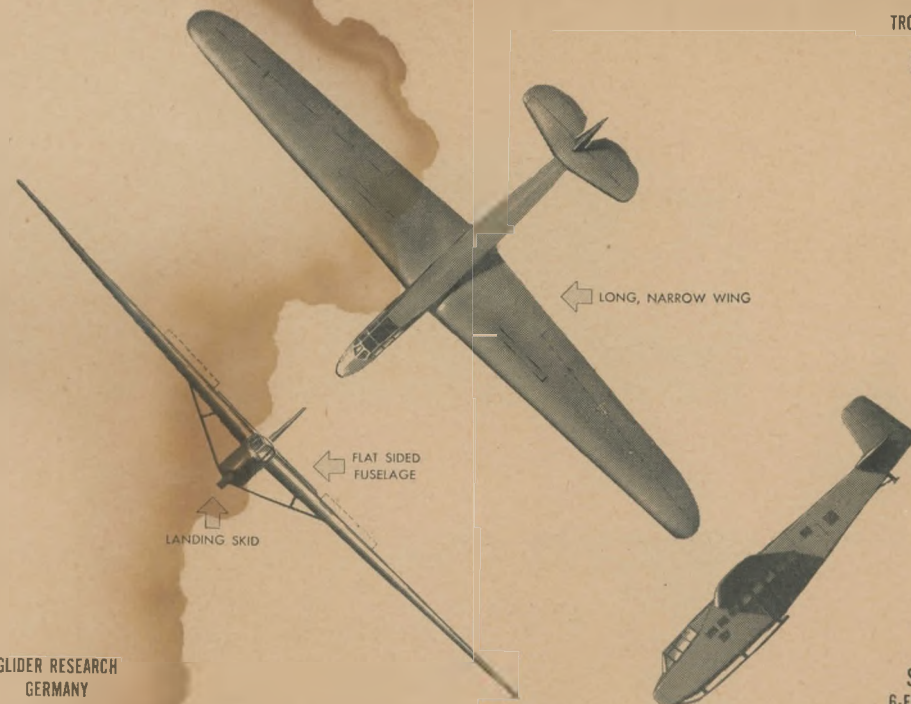


B



C





TROOP GLIDER



REICH

GLIDER RESEARCH  
GERMANY

**DISTINGUISHING FEATURES:** High-wing monoplane braced with single struts. Wing is long and narrow with slight taper on leading edge, tapered trailing edge, and small rounded tips. Fuselage long and narrow in plan and has straight top. Cross-section is rectangular. Tailplane has tapered leading edge with round tips and curved trailing edge with V cut-out. Tall, single fin and rudder is slightly tapered with blunt top.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** The D. F. S. 230 is one of Germany's standard gliders and was used in the occupation of Crete. The optimum gliding speed of this glider after release is approximately 70 m. p. h. Its landing speed in still air is from 35 to 40 m. p. h. It is a 10-seater of simple design.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

## D. F. S. 230



**SPAN:** 72 ft. 4 in.

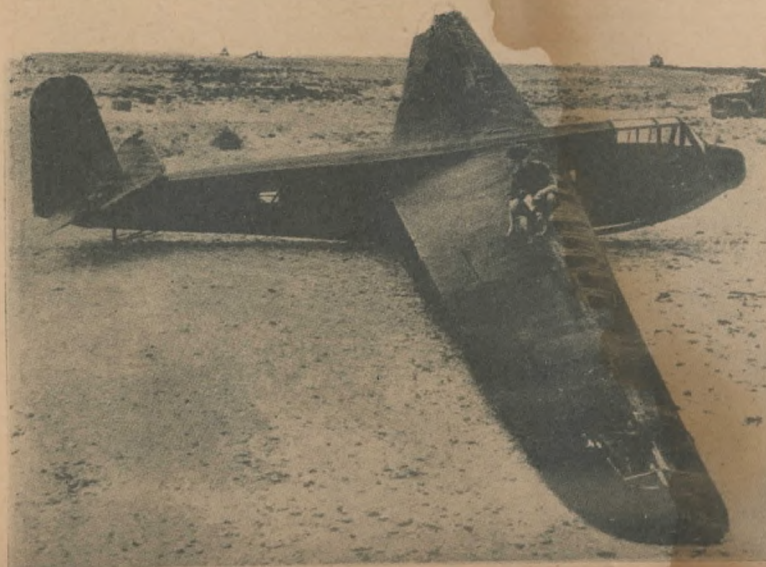
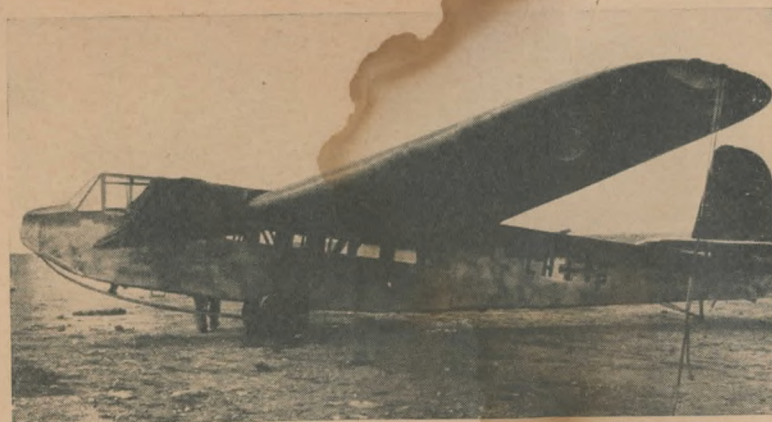
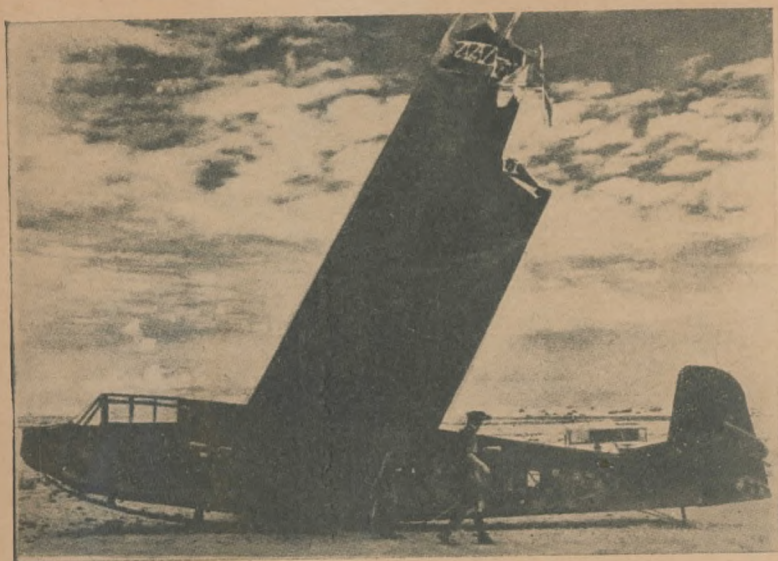
**LENGTH:** 37 ft. 6 in.

**NORMAL TOWING SPEED:** 110 m. p. h.

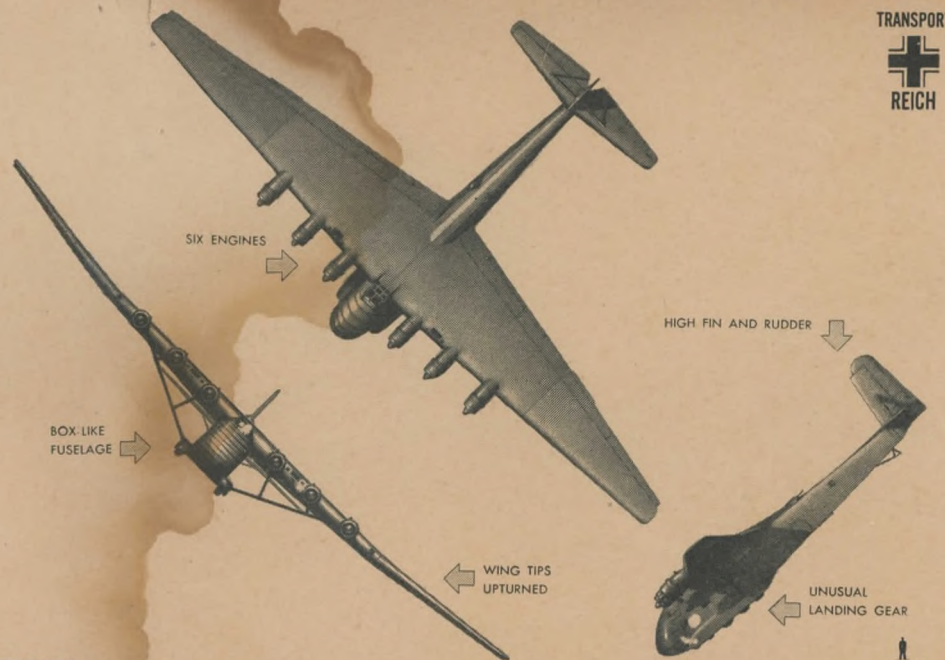
**SERVICE CEILING:**

**RESTRICTED**









TRANSPORT  
  
 REICH

MESSERSCHMITT  
 GERMANY

**DISTINGUISHING FEATURES:** Six-engine, high-wing monoplane. Very long strut-braced wings are tapered to small, squarish tips. Center section is very thick and has no dihedral. Long outer panels have marked dihedral. Nose-heavy, humpback fuselage tapers sharply aft of the wing. Landing gear consists of five wheels in tandem under each side of forward fuselage. Tailplane resembles wing in plan with cut-out in elevators. Extremely tall, narrow single fin and rudder has slightly tapered edges and round top.

NOV. 1943  
 FROM DATA CURRENTLY AVAILABLE

**INTEREST:** The Me. 323 is a modified, powered version of the Me. 321 "Gigant" glider. During the final stages of the Tunisian campaign, P-40 "Warhawks" completely destroyed a large formation of these giants attempting to land supplies for the besieged German troops. With a full military load of 130 troops or about 40,000 pounds of cargo, some sort of assisted take-off, either a tug or rockets, is believed to be used. The nose of the fuselage is made up of two very large doors which allow loading of heavy equipment.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
 NAVY DEPARTMENT BUAER 3

SCALE  
 6-FOOT MAN

# ME. 323



**SPAN:** 181 ft.

**LENGTH:** 93 ft. 4 in.

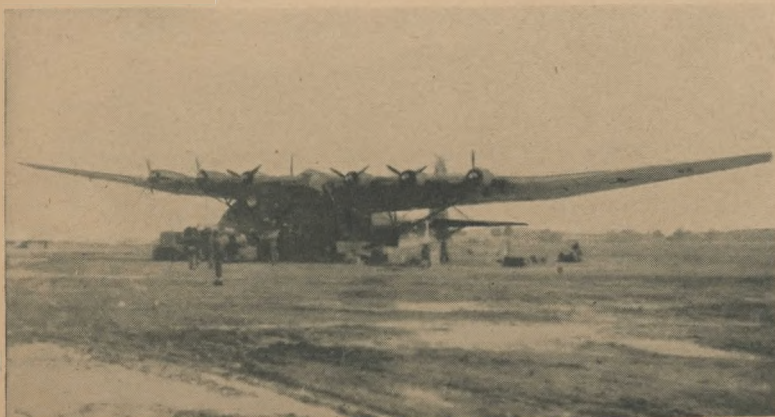
**APPROX. SPEED:** 195 m. p. h. at 13,000 ft.

**SERVICE CEILING:**

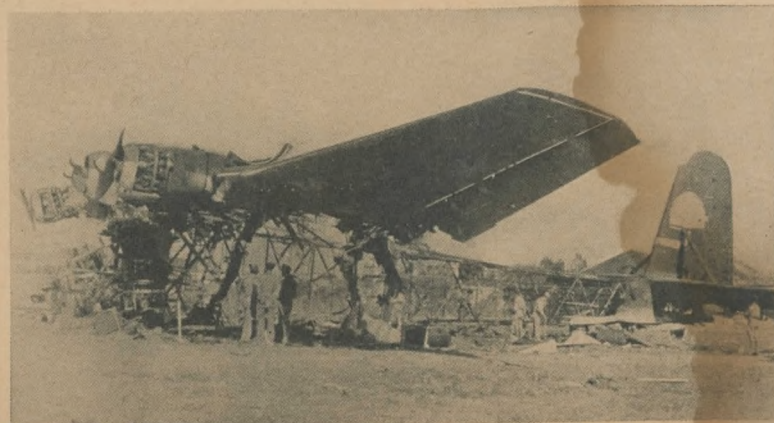
21,000 ft.

**RESTRICTED**

A

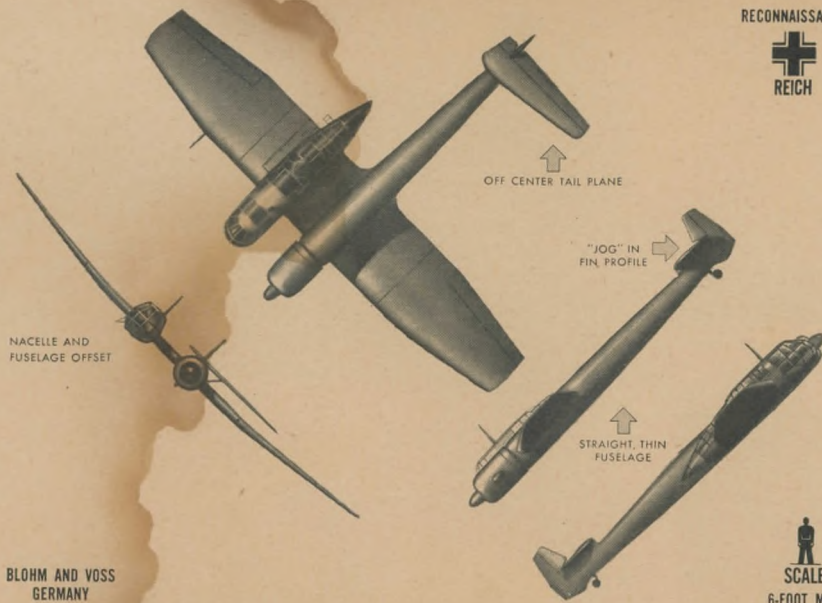


B



C





BLOHM AND VOSS  
GERMANY

**DISTINGUISHING FEATURES:** Single-engine, midwing, asymmetrical monoplane. Wing has long, straight center section with tapered outer section and blunt tips. The engine is housed in main fuselage to the left of the cabin, which projects beyond both leading and trailing edges of wing. Horizontal stabilizer extends to the left side of the fuselage with only small stub on

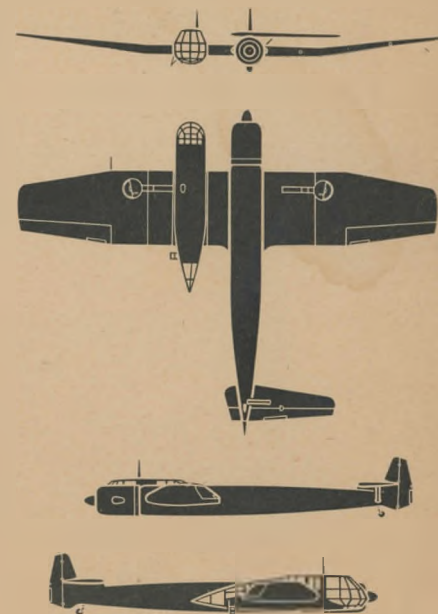
the right side. Single fin and rudder is small and angular.

**INTEREST:** The B. V. 141 was designed for tactical reconnaissance and may be in service in small numbers. A very odd-looking aircraft, its principal advantage is in visibility obtained by the unusual design.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAEK 3

## B. V. 141

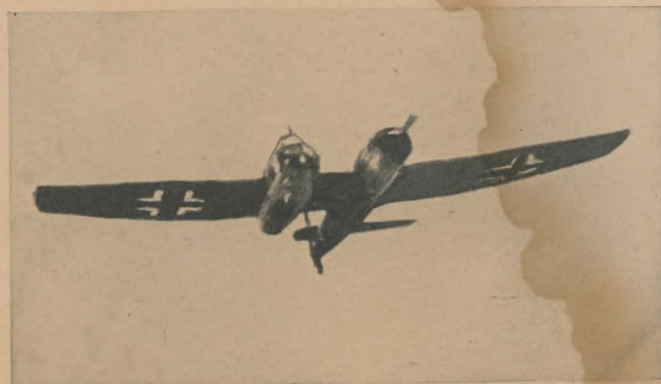
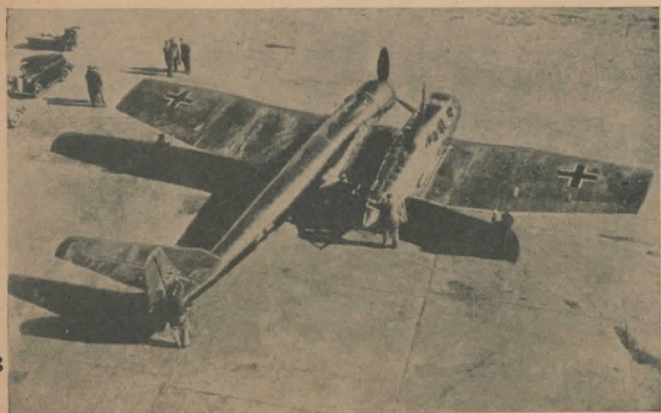
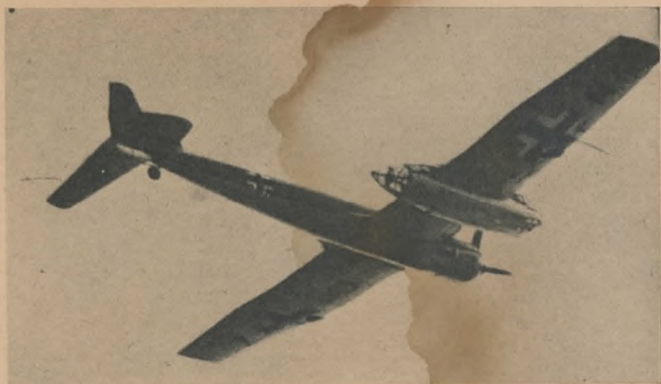


**SPAN:** 60 ft. (est.)  
**LENGTH:** 45 ft. (est.)

**SERVICE CEILING:**

**APPROX. SPEED:** 280 m. p. h. at 16,000 ft.

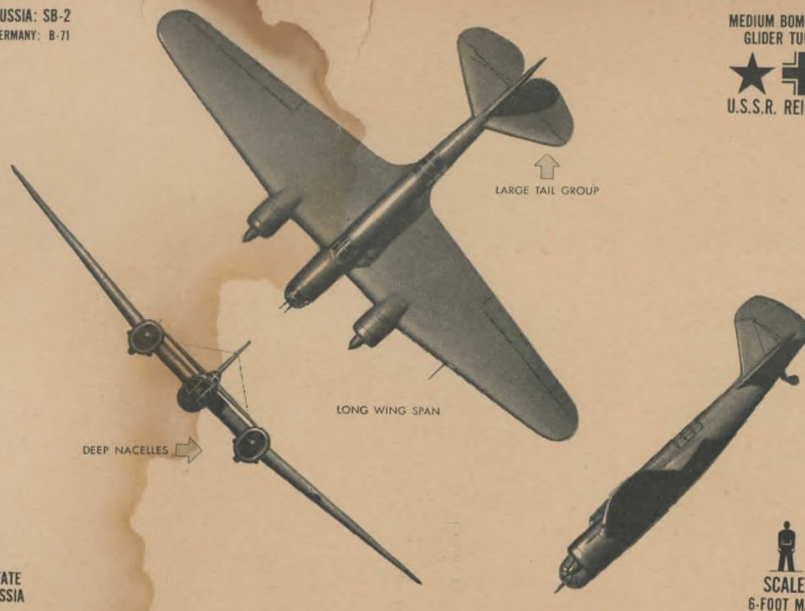
**RESTRICTED**





RUSSIA: SB-2  
GERMANY: B-71

MEDIUM BOMBER  
GLIDER TUG  
★  
U.S.S.R. REICH



STATE  
RUSSIA

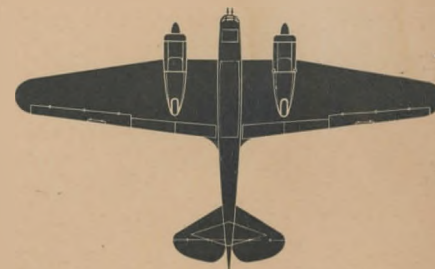
**DISTINGUISHING FEATURES:** Twin-engine, mid-wing monoplane. Oval-shaped engines. Leading edge of unusually long wing has straight center section and tapered outer sections. Trailing edge tapered with large fillets at fuselage. Round tips. Fuselage has rounded nose. Large fin tapers forward. Rounded rudder. Tailplane has rounded elevators with V cut-out. Leading edge of tailplane tapers forward.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** A Soviet bomber of moderate size used in the Spanish Civil War and the Russo-Finnish campaign. Front twin-gun turret has slots for elevation and a limited traverse. Early models had a dorsal gun cockpit with sliding cover. Later models fitted with turret. Semi-retractable ventral gun position aft of rear cockpit. Engines are 860 hp. liquid-cooled V type with automobile-style radiators. Some of these planes, produced in Czechoslovakia, were seized by the Germans and used as glider tugs. German designation is B-71.

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

SB-2



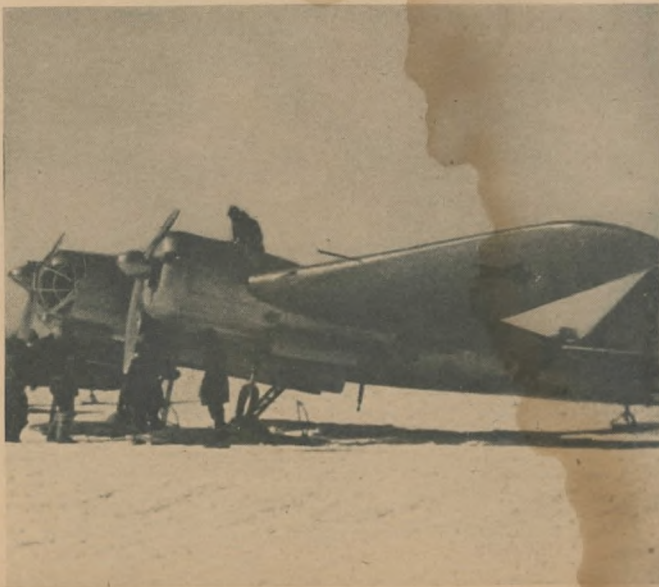
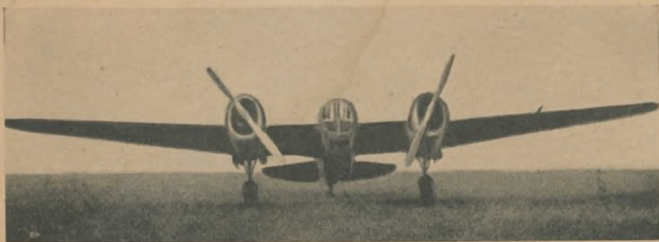
SPAN: 66 ft. 11 in.

LENGTH: 41 ft.

MAX. SPEED: 250 m. p. h. at 15,000 ft.

SERVICE CEILING:  
27,000 ft.

RESTRICTED





ATTACK BOMBER



# IL-3; IL-2



SPAN: 47 ft. 11 in.

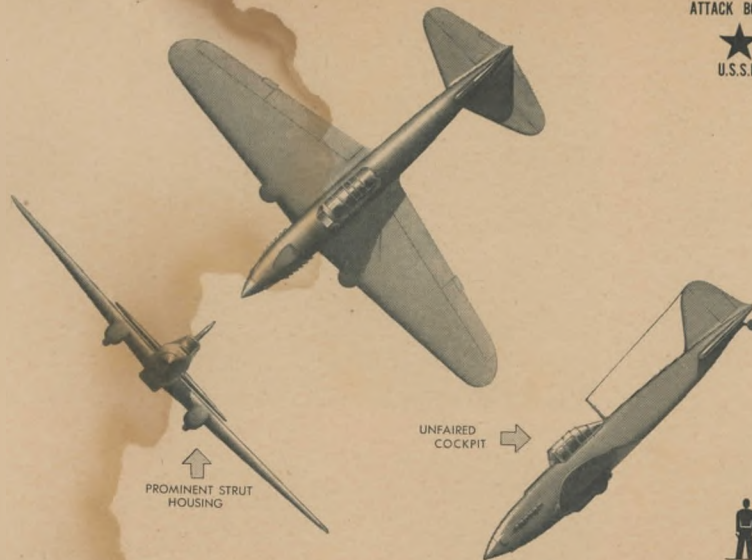
LENGTH: 38 ft.

MAX. SPEED: 275 m. p. h. at 8,000 ft.

SERVICE CEILING:

28,000 ft.

**RESTRICTED**



SCALE  
6-FOOT MAN

STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Single inline engine, low-wing monoplane. Wing has pronounced taper and trailing edge fairs into fuselage. Prominent fairings for retractable landing gear beneath wings. Fuselage has rather long nose with pointed spinner and radiator beneath wing. Prominent, unfaired cockpit canopy. Fin and rudder have rounded top. Diamond-shaped tailplane with round tips.

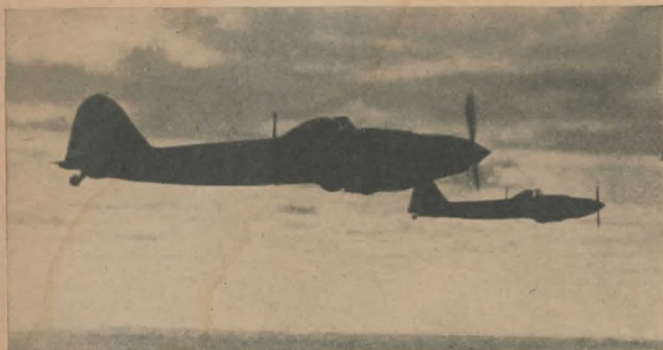
**INTEREST:** The Stormovik is said to be so heavily armored for strafing work that light cannon fire has small effect on its sides. It is in its element when flying low, attacking German tank and mechanized columns. The engine cowling is composed of steel plate 6- to 8-mm. in thickness. Even parts of the plane which are the least vulnerable have protecting armor of 4 mm. thickness. With heavy armament consisting of two 20- or 37-mm. cannon, plus machine guns, the plane is designed especially to be a "flying anti-tank battery."

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-20  
NAVY DEPARTMENT BUAE 2



A



C

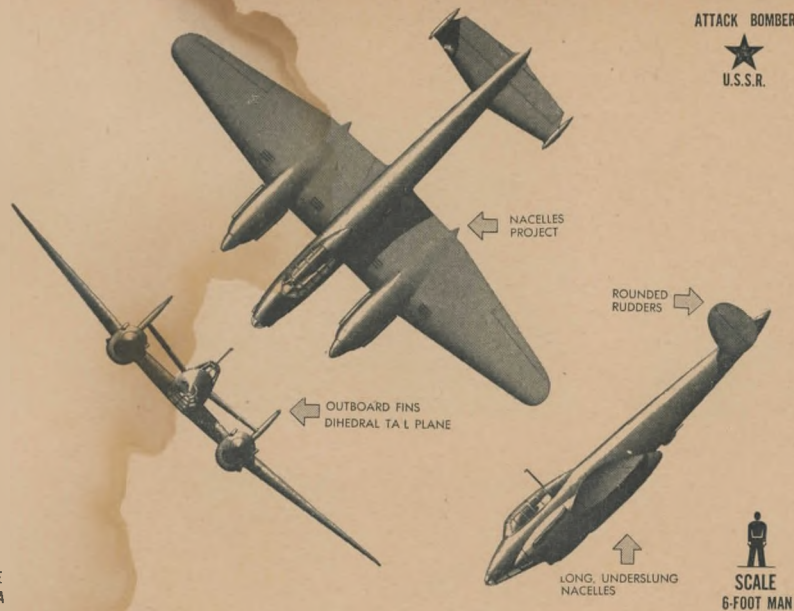


B



D





STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Twin inline engine, low-wing monoplane. Wing has rectangular center section. Leading edge and trailing edge of outer section equally tapered. Curved tips. Engine nacelles are underslung and project beyond trailing edge. Fuselage has graceful slender taper. Small raised cockpit canopy. Warped oval-shaped fins and rudders mounted outboard on stabilizer which has pronounced dihedral.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** The 16th German Army at Staryia will remember this plane, which was used to bomb their airfields. The PE-2, a light bomber, has often met German fighters in hand-to-hand combat. Originally designed as a dive bomber, this fast "twin-tail" has performed many kinds of offensive and defensive actions. The fighter version of this plane has no bombardier's windows under the nose and is known as the PE-2B or PE-3.

SUPPLEMENT  WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

## PE-2; PE-2B



SPAN: 56 ft. 1 in.  
LENGTH: 41 ft. 5 in.  
APPROX. SPEED: over 300 m. p. h.

SERVICE CEILING:  
32,000 ft.

**RESTRICTED**



A



C



B



D

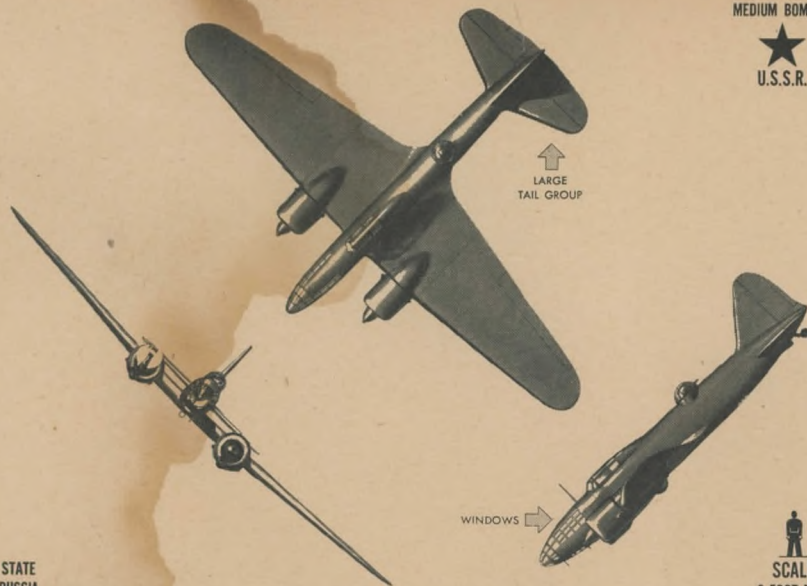


STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Twin radial engine, low-wing monoplane. Trailing edge has pronounced taper and fairs into fuselage. Transparent nose. Raised cockpit canopy. Round turret centered between fin and cockpit. Fin tapers forward. Tapered tailplane with rounded tips.

**INTEREST:** The DB-3 and DB-3F were developed from the ZKB-26 which flew from Moscow to Misow Island, New Brunswick, in April 1939. The DB-3F has a streamlined pointed

NOV. 1962  
FROM DATA CURRENTLY AVAILABLE



nose instead of a turret and slightly different engine cowlings; otherwise it is identical to the DB-3. The large wing root fillets are characteristic of most Russian types. The M-88 radial engines give about 1,100 hp. and are fitted with two-speed superchargers. Other equipment consists of variable pitch propellers and five 7.6-mm. machine guns. The DB-3F is slightly faster than the DB-3 and when fitted with extra gas tanks it can be used for long range photographic reconnaissance.

SUPPLEMENT ONE  
WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

# DB-3F



**SPAN:** 70 ft. 2 in.

**LENGTH:** 47 ft. 7 in.

**APPROX. SPEED:** 295 m. p. h. at 21,000 ft.

**SERVICE CEILING:**  
29,000 ft.

**RESTRICTED**



A



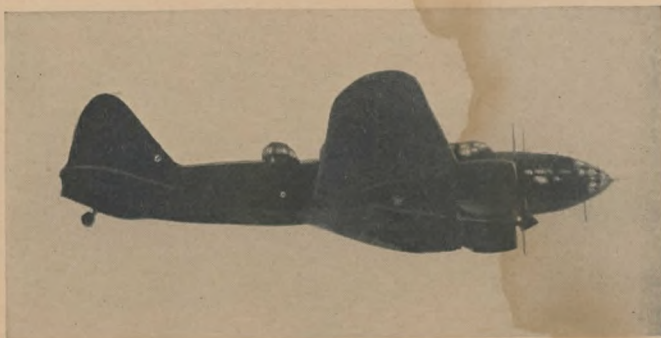
C

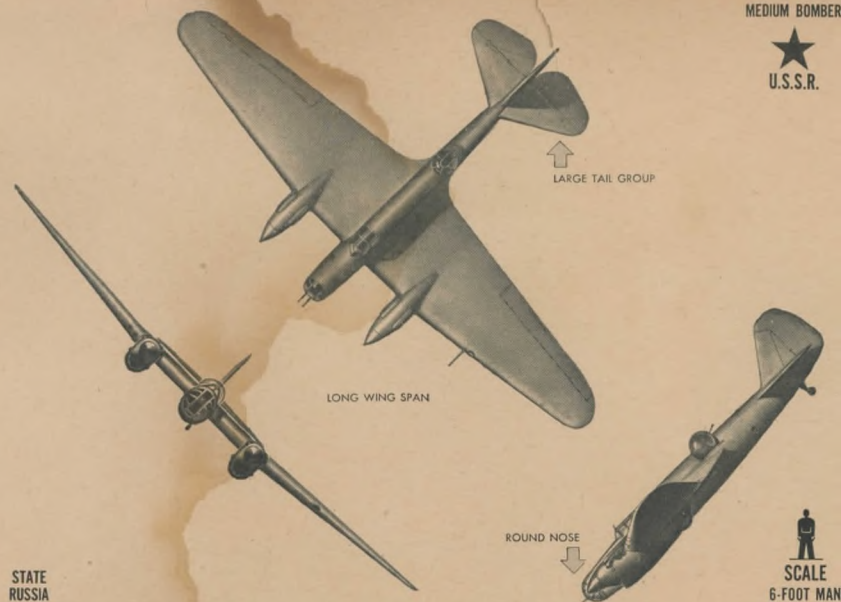


B



D





STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Twin-engine, high mid-wing monoplane. Long wing has equally tapered outboard sections with straight leading edge on center section. Liquid-cooled engines have pointed spinners and underslung radiators. Fuselage has rounded nose. Rudder is rounded. Fin tapers forward. Large cut-out in rounded trailing edge of elevators.

**INTEREST:** The SB-3 is a three-seater bomber and a later version of the SB-2. It has more powerful engines than the earlier version. Two

different styles of cowlings are used to house this engine: One with a ducted underslung radiator and the other with both radiators and oil coolers in the wing. Many SB-3 bombers have dive brakes under the wing, outboard of the nacelles. This bomber is protected by leakproof tanks and armor plate and carries 4 x 7.6-mm. guns. The later models of this plane are equipped with a dorsal turret, whereas the earlier planes had an open gun position with sliding cover identical with that used on the SB-2.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

# SB-3



**SPAN:** 66 ft. 11 in.

**LENGTH:** 41 ft.

**APPROX. SPEED:** 260 m. p. h. at 14,000 ft.

**SERVICE CEILING:**  
28,000 ft.

**RESTRICTED**



A



D



E



B



C

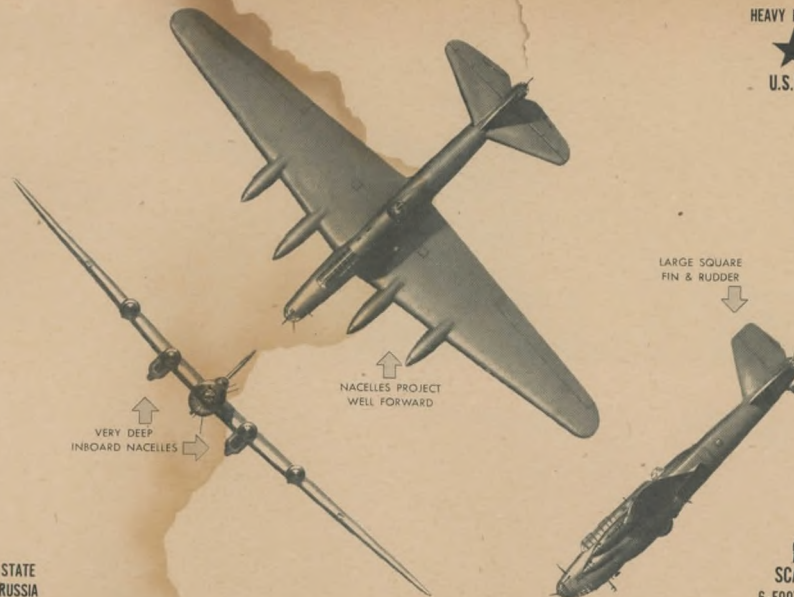


F

HEAVY BOMBER



U.S.S.R.



STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Four inline engine, mid-wing monoplane. Wings are tapered on both edges with rounded tips. Outboard nacelles small and round. Inboard nacelles very deep with large radiator under engine and gun position in the rear. Raised greenhouse with rear portion covered. Top gun turret. Tailplane is tapered with round tips, while the single fin and rudder is tall and angular.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SCALE  
6-FOOT MAN

**INTEREST:** This is the best known Russian long-range bomber. These planes have raided Berlin, Danzig, and Balkan cities. It is now in large-scale production and is in service with the new bomber command of the Red Air Force. The TB-6B, from which the TB-7 was redesigned, was used in Polar expeditions before the war. The TB-7 carries a crew of about 9 men. Gun positions in the large underslung inboard nacelles are an interesting feature of this aircraft.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

TB-7



SPAN: 131 ft. 2 in.

LENGTH: 73 ft. 10 in.

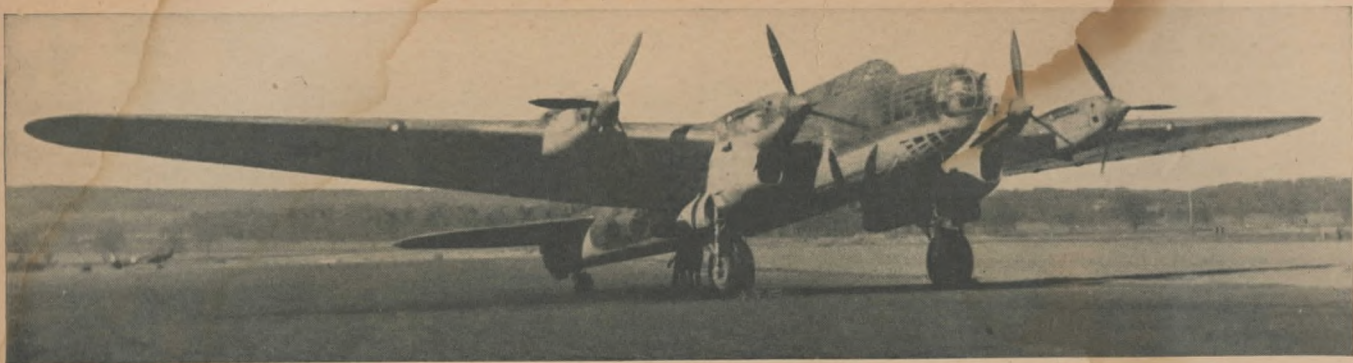
MAX. SPEED: 275 m. p. h. at 22,000 ft.

SERVICE CEILING:

36,000 ft.

**RESTRICTED**





C

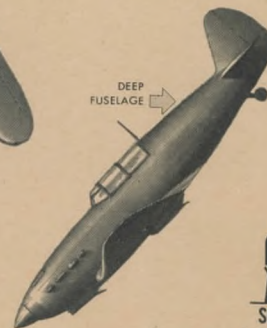
FIGHTER  
★  
U.S.S.R.



STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Single inline engine, low-wing monoplane. Wings have nearly equal taper with large fillets. Long pointed nose with large spinner. Oil cooler shows under the nose. Radiator is placed well aft. Cockpit is centered amidships. Fin tapers forward with rounded top. Rudder is rounded. Tailplane has elliptical trailing edge and large V cut-out.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE



SCALE  
6-FOOT MAN

**INTEREST:** This airplane was designed by Alexander Yakovlev, who was also responsible for the Yak-4. It has been reported in action on the northwestern front. The rear fuselage appears to have a fabric covering. The landing gear retracts inward and is well covered by fairing plates. The appearance of the exhausts indicates that the engine is of the Hispano-Suiza type.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

## YAK-1 (I-26)



SPAN: 32 ft. 10 in.  
LENGTH: 27 ft. 11 in.  
MAX. SPEED: 315 m. p. h. at 14,000 ft.

SERVICE CEILING:  
30,500 ft.

RESTRICTED



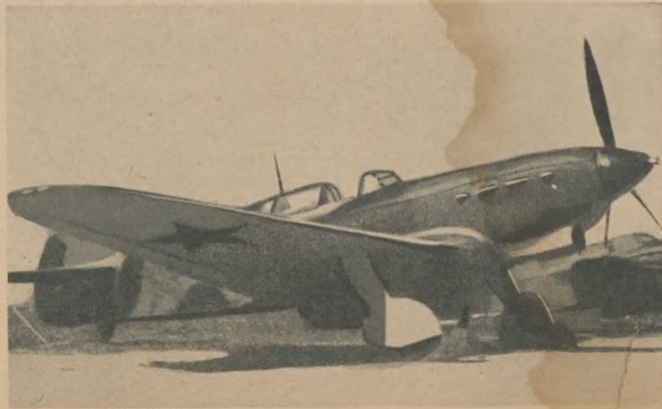
A



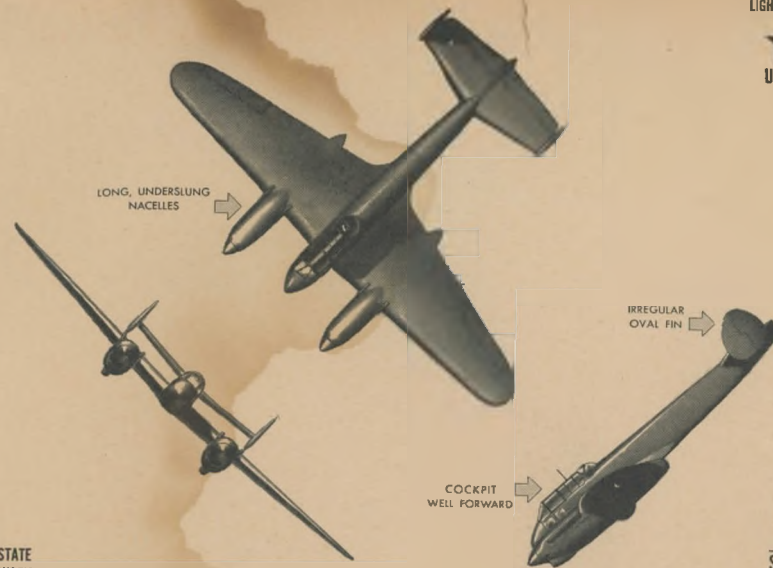
B



C



LIGHT BOMBER



STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Twin inline engine, low-wing monoplane. Slight taper to leading edge of wing. Trailing edge highly tapered, fairs into fuselage. Engine nacelles protrude beyond trailing edge of wing and beyond nose of fuselage. Protruding cockpit canopy well forward. Twin outboard fin and rudders have distorted circular shape.

**INTEREST:** One of the Russian high-speed bombers, the Yak-4 has contributed much to the work of the Red Air Force. The construction of the plane is of mixed wood and metal. It carries a crew of two in a well-glazed cockpit. The armament is said to consist of two 20-mm. and four 7.6-mm. machine guns, in addition to a 2,200-lb. bomb load. A semi-retractable ski landing gear may be installed when necessary.



NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

**YAK-4**



**SPAN:** 45 ft. 11 in. **SERVICE CEILING:** 27,500 ft.  
**LENGTH:** 32 ft. 10 in.  
**MAX. SPEED:** 320 m. p. h. at 14,000 ft.

**RESTRICTED**



A



C



B



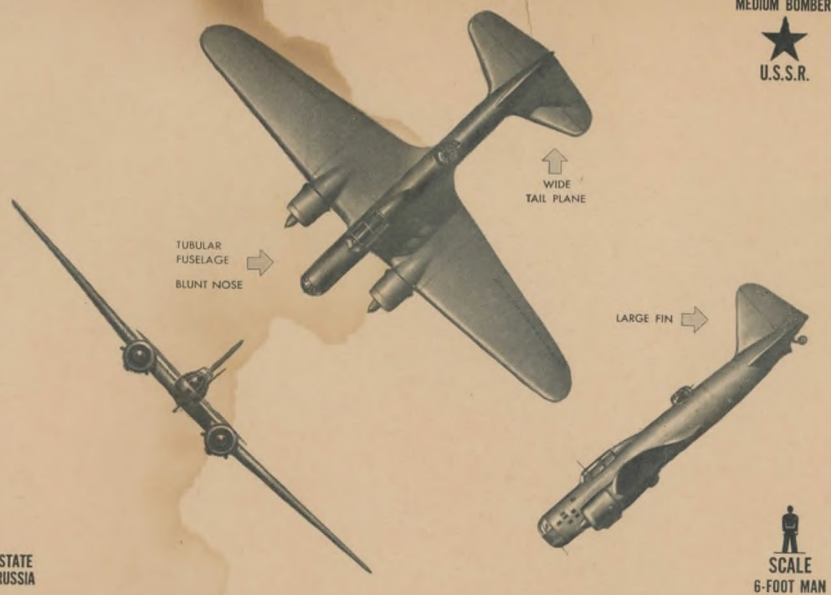
D



STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Twin radial engine, low-wing monoplane. Wings have equal taper with rounded tips. Round protruding nose. Top turret is centered between cabin canopy and fin. Large wing root fillets. Triangular fin and rudder with rounded top. Tailplane has more taper on leading edge and rounded tips.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE



**INTEREST:** The DB-3 is an all-metal monoplane of sound light-alloy stressed-skin construction. The fuselage is straight with slight taper near the tail. The tail unit has fabric-covered control surfaces. The shape of the tail closely resembles that of the Stormovik. Both airplanes were designed by Serge Ilyushin. This plane is identical in appearance to the DB-3F, except for the nose of the fuselage and the engine cowlings.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

DB-3



**SPAN:** 70 ft. 2 in. **SERVICE CEILING:**  
**LENGTH:** 46 ft. 10 in. 25,500 ft.  
**MAX. SPEED:** 260 m. p. h. at 16,000 ft.

**RESTRICTED**



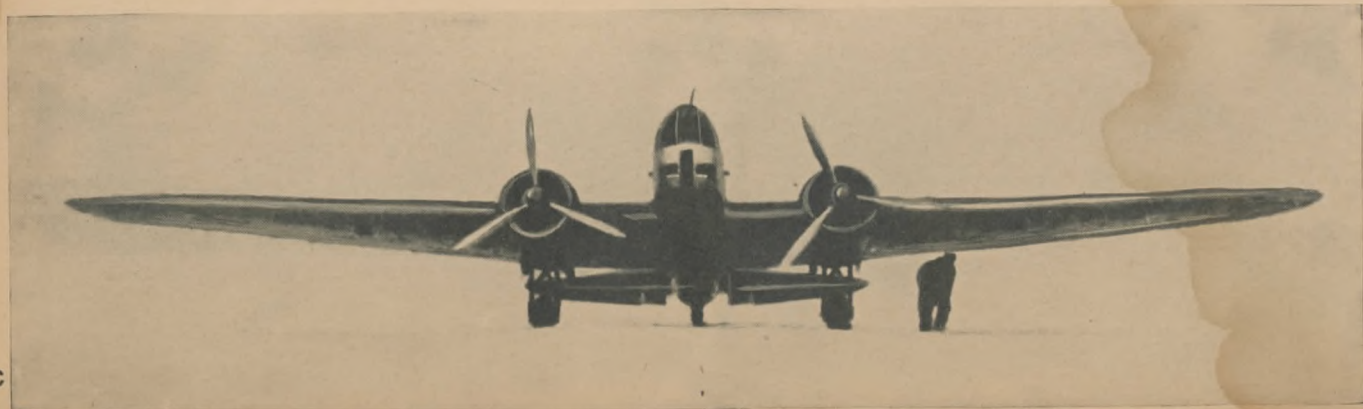
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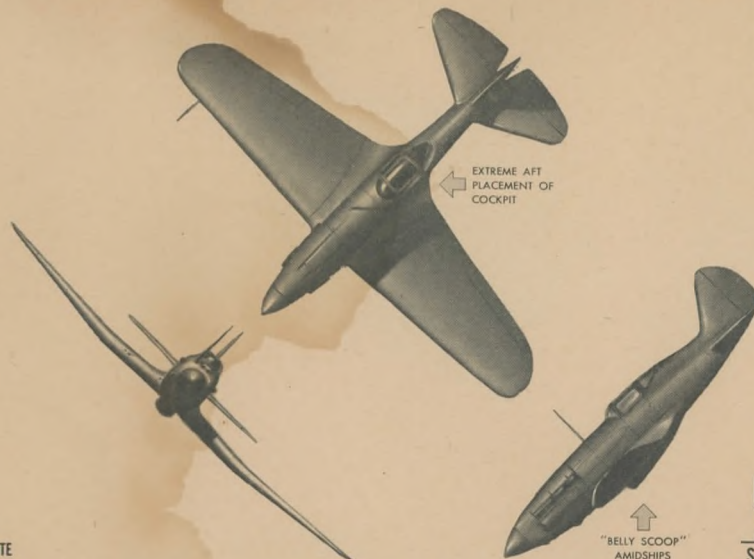
B



C



FIGHTER  
★  
U.S.S.R.



STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Single inline engine, low-wing monoplane. Slight inverted gull wing with rounded tips. Leading edge has slight taper; trailing edge sharp taper. Trailing edges faired into fuselage. Long nose with large pointed spinner. Small cockpit set over trailing edge of wing. Fin and stabilizer taper well forward. Rounded trailing edge on rudder and elevators. V cut-out in center of elevators.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** A modern liquid-cooled fighter, the Mig-3 was constructed after the start of the war and was developed largely from the I-16 ("Mosca") which had seen combat service in the Spanish Revolution. As in other Russian planes, the I-18 makes noticeable use of intermixed wood and metal construction. It is one of Russia's best fighters and has met with outstanding success in encounters with the best planes of the Luftwaffe. This fighter played a large part in holding the Germans before Moscow in 1941.

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

## MIG-3 (I-18)



SCALE  
6-FOOT MAN

**SPAN:** 34 ft. 6 in.  
**LENGTH:** 26 ft. 8 in.  
**APPROX. SPEED:** 375 m. p. h. at 22,000 ft.

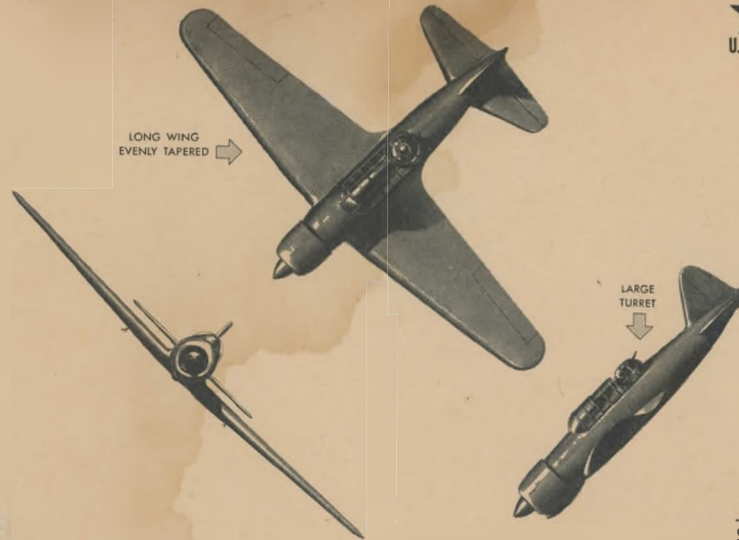
**SERVICE CEILING:**  
34,000 ft.

**RESTRICTED**





ATTACK BOMBER



LONG WING  
EVENLY TAPERED

LARGE  
TURRET



STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Single radial engine low-wing monoplane. Wings have very little dihedral, equal taper, and rounded tips. Large round nose with prominent spinner. Fuselage has a long transparent canopy with a turret at the rear. Tapered tail surfaces with rounded tips.

**INTEREST:** The SU-2 is a two-seater general purpose monoplane. Its general appearance is similar to the Brewster Bermuda and Curtiss Helldiver. German sources state that this plane can be used as a four-gun single-seater. The single gun turret is similar to that used on the DB-3 and has an ingenious hinged cupola, half of which opens as an exit.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAEER 3

SU-2



SPAN: 47 ft. 2 in.

LENGTH: 31 ft. 10 in.

MAX. SPEED: 300 m. p. h. at 21,000 ft.

SERVICE CEILING:

33,000 ft.

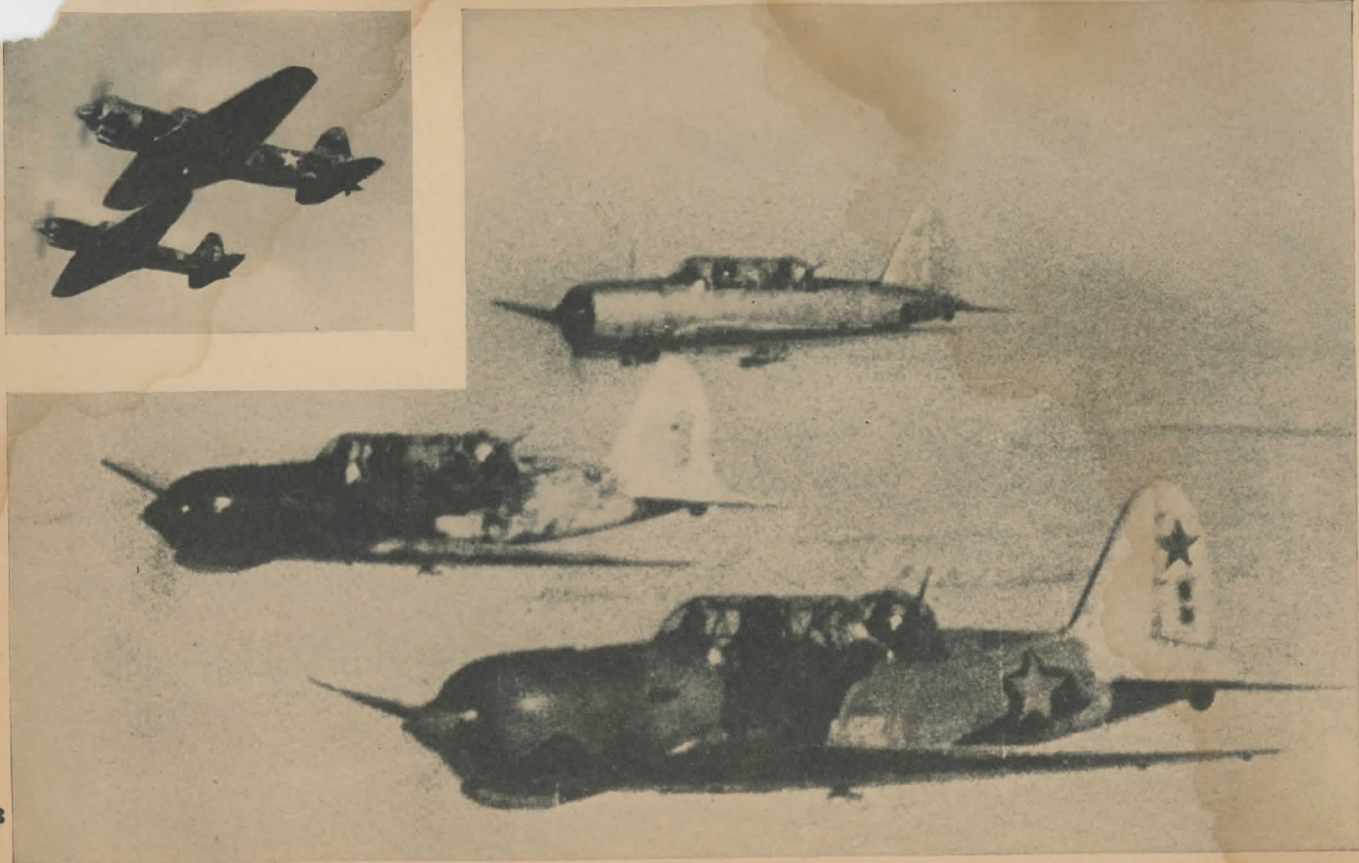
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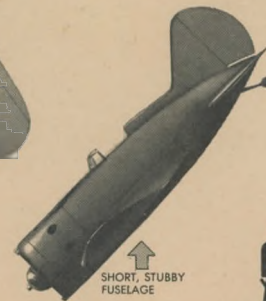




STATE  
RUSSIA

**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. Wing has straight leading edge, tapered trailing edge and rounded tips. Very large wing fillets extend well back toward tail. Fuselage very short and stubby with large cylindrical nose. Small cockpit set well back with head fairing extending to fin. Rudder has round trailing edge. Stabilizer has leading edge tapered forward. Elevators have cut-out in center.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE



FIGHTER  
★  
U.S.S.R.

**INTEREST:** This monoplane received thorough testing in the Spanish Civil War. It has been handicapped in maneuverability due to high wing loading. As used in Spain, the I-16 had armor plate of 7 mm. thickness, which protected the back and head of the pilot. This plane, although obsolete, is used as a fighter and advanced trainer. The current model, the I-16C or "Super Rata," has a 1,000 hp. engine. The older I-16 is sometimes called the "Rata" or "Mosca."

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# I-16; I-16C



**SPAN:** 29 ft. 2 in.

**LENGTH:** 20 ft. 4 in.

**APPROX. SPEED:** 300 m. p. h. at 15,000 ft.

**SERVICE CEILING:**  
32,000 ft.

**RESTRICTED**



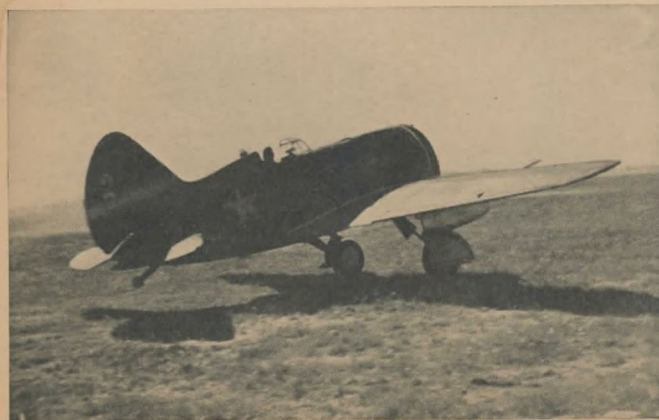
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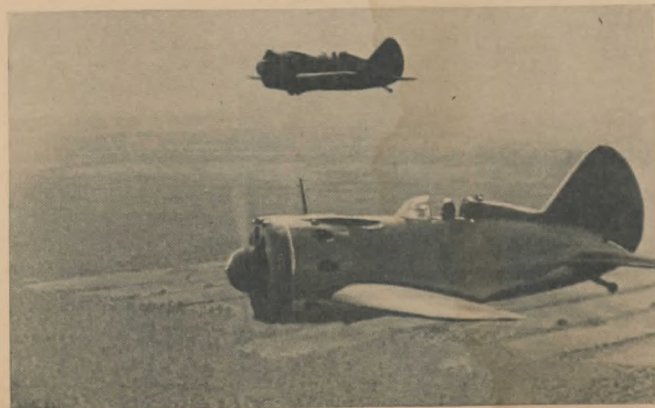
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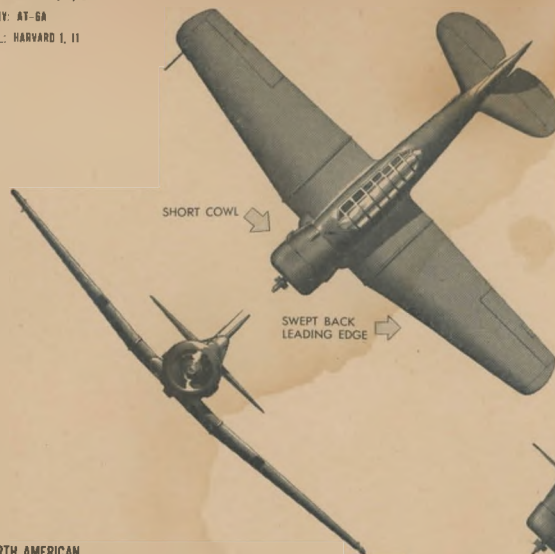
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D



NAVY: SNJ-3, 4, 5  
ARMY: AT-6A  
U. K.: HARVARD I, II



NORTH AMERICAN  
U. S. A.

**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. The outer section of the wing has marked dihedral with pronounced taper on the leading edge. The center section is rectangular. Squarish wing tips. Large round nose. Large unfaired cockpit canopy extending beyond trailing edge of wing. High triangular fin and rudder. Tailplane tapers forward and has elliptical-shaped elevators with V cut-out.

**INTEREST:** Now known as the Texan (formerly the Harvard), this advanced trainer has played a vital role in the final stages of pilot training. It is noted for its sturdiness and ease of maintenance. The Texan is powered with a 550-hp. Pratt & Whitney radial engine, and has a weight of approximately 5,200 pounds. It is used as an advanced fighter trainer by nearly all of the United Nations. This plane with a few minor modifications is manufactured under license in Australia, where it is known as the Whirraway. The Whirraway has been used on occasion as a dive bomber.



SCALE  
6 FOOT MAN

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

## TEXAN SNJ; AT-6A



SPAN: 42 ft.  
LENGTH: 29 ft.  
MAX. SPEED: 210 m. p. h. at 5,000 ft.

SERVICE CEILING:

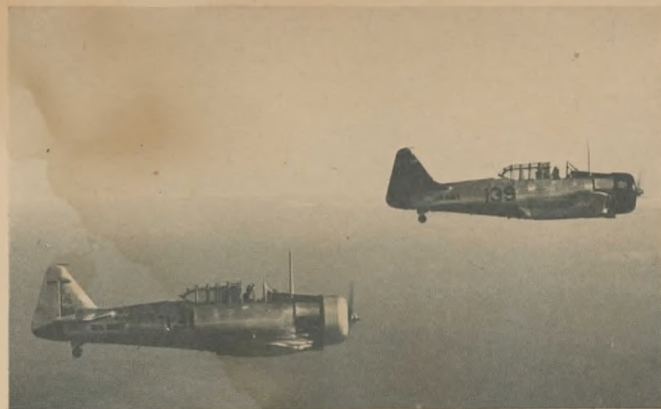
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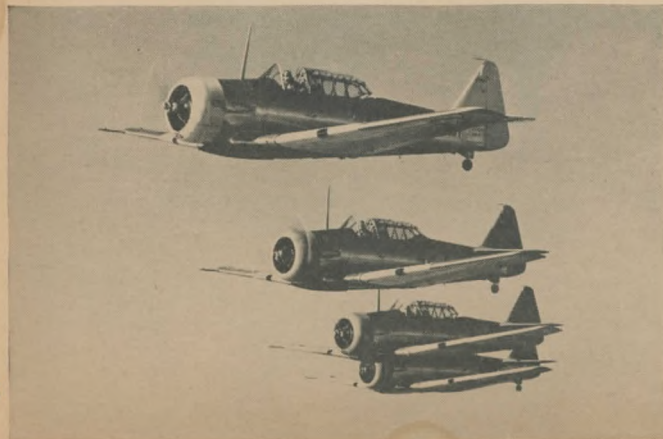
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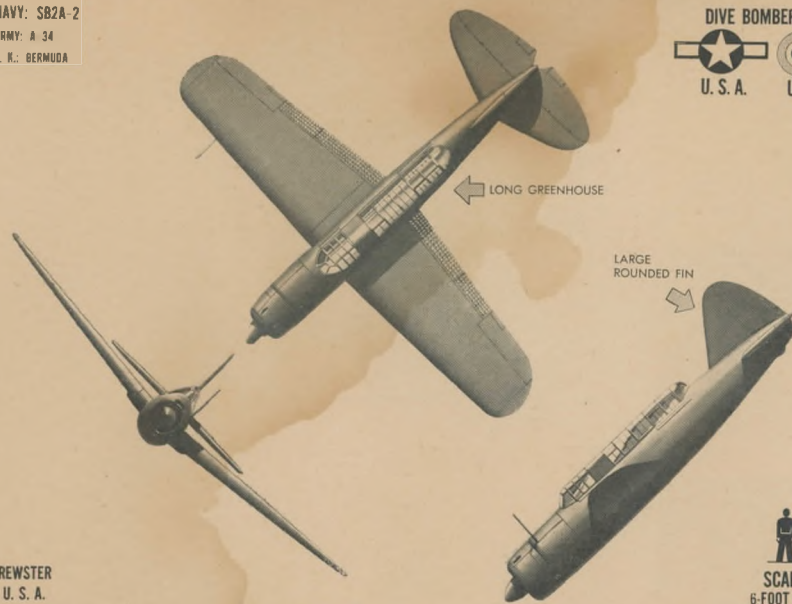
B



D



NAVY: SB2A-2  
ARMY: A 34  
U. K.: BERMUDA



BREWSTER  
U. S. A.

SCALE  
6-FOOT MAN

**DISTINGUISHING FEATURES:** Single radial engine mid-wing monoplane. Wing slightly tapered with more taper on trailing edge and broad rounded tips. Long, oval fuselage with large, unfaired greenhouse extending nearly to the fin. Triangular-shaped fin and rudder has tapered leading edge, curved trailing edge with V cut-out in center and rounded tips.

**INTEREST:** This Brewster-made dive bomber has been nicknamed the "Bermuda" by the British. Although this plane has not been used extensively in actual combat, it is used by both the U. S. Navy and the British Fleet Air Arm as an advanced dive-bomber trainer.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

## BUCCANEER SB2A



**SPAN:** 47 ft. **SERVICE CEILING:**  
**LENGTH:** 39 ft. 2 in. 24,900 ft.  
**MAX. SPEED:** 274 m. p. h. at 12,000 ft.

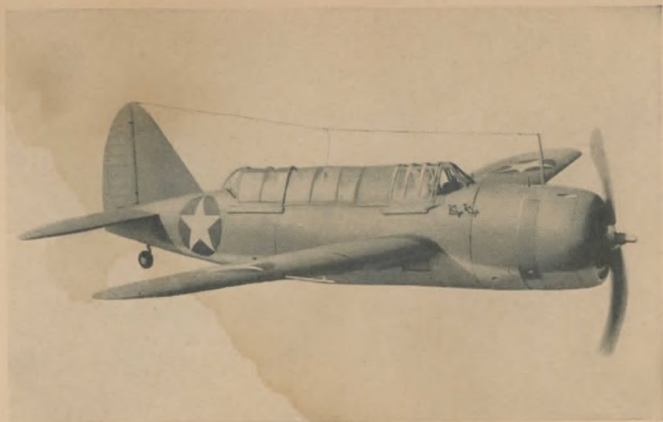
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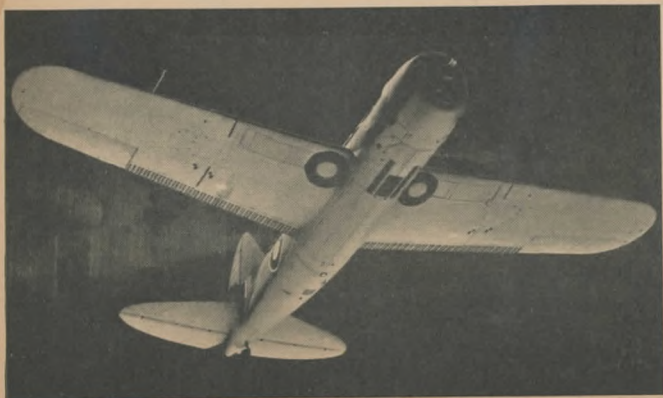
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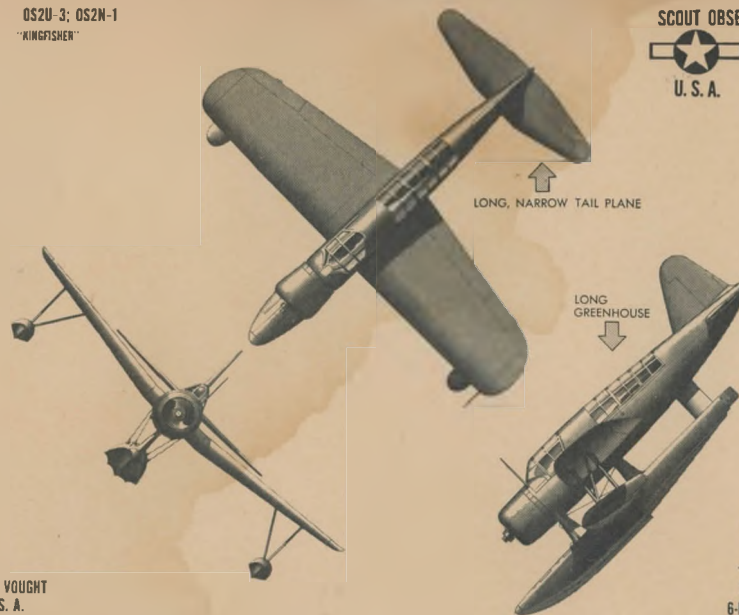
B



D



NAVY: OS2U-3; OS2N-1  
U. K.: "KINGFISHER"



CHANCE Vought  
U. S. A.

**DISTINGUISHING FEATURES:** Low mid-wing monoplane with single float. Wing has straight leading edge, slightly tapered trailing edge and curved tips. Long faired greenhouse extending nearly to the tail. Narrow, diamond-shaped tailplane with round tips set aft of the fin. Tapered fin and rudder with round tip. Single float supported by two faired struts beneath the wing and a wide plate strut at the after end. Prominent wing-tip floats.

**INTEREST:** The principal function of the Kingfisher is to spot gunfire for the Fleet. It is designed for catapulting from battleships or cruisers and has replaced the Curtiss SOC as the principal observation floatplane of the U. S. Navy.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

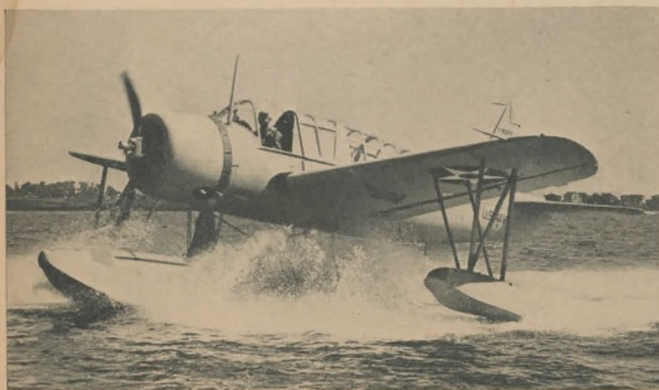
## KINGFISHER OS2U (Seaplane)



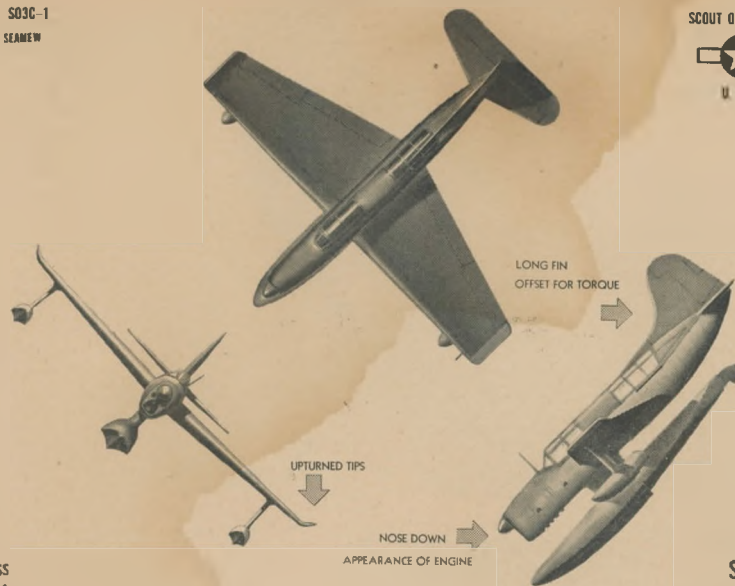
SPAN: 35 ft. 11 in. SERVICE CEILING: 13,000  
LENGTH: 33 ft. 10 in.  
MAX. SPEED: 164 m. p. h. at 5,500 ft.

**RESTRICTED**





NAVY: S03C-1  
F. A. A. SEAMEW



CURTISS  
U. S. A.

**DISTINGUISHING FEATURES:** Single-engine, mid-wing monoplane. Single large float with fixed wing floats. Wing has straight leading edge, tapered trailing edge, and square upturned tips. Fuselage narrow with long greenhouse faired back to the tail. Deep inline engine has a nose-down appearance with spinner at top. Large rounded fin and rudder sweeps forward over rear of greenhouse. Tailplane set back with straight trailing edge, tapered leading edge and round tips.

**INTEREST:** The Seagull is designed for operation as gun spotter for the Fleet. An interesting feature is the air-cooled, inverted, inline engine. Equipped for catapult launching, the Seagull can be easily landed in rough waters and is known for its long range. This plane is known as the "Seamew" in the British Fleet Air Arm. Some of the earlier Seagulls have a curved trailing edge on the elevator.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

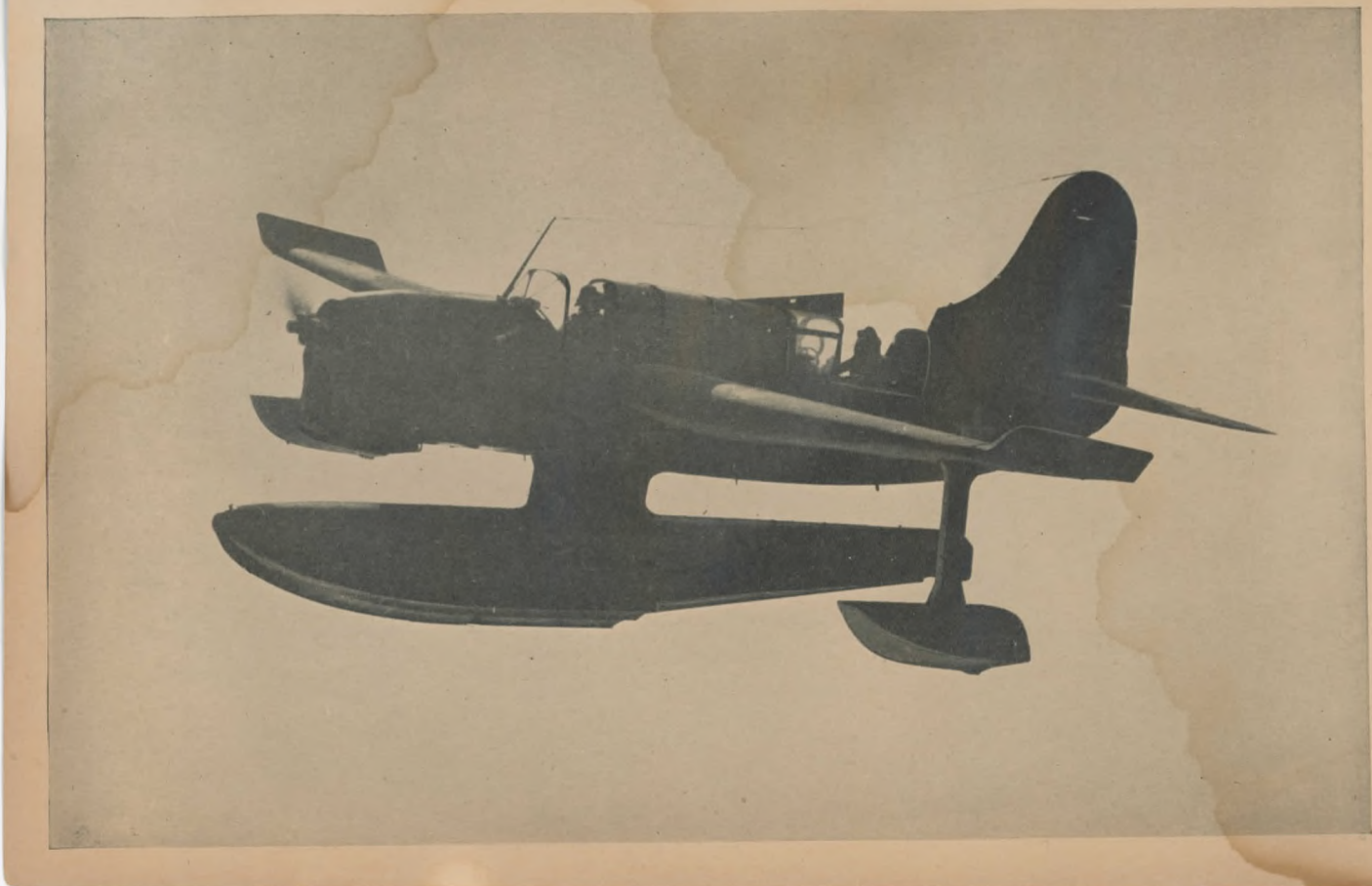
## SEAGULL S03C (Seaplane)



SPAN: 38 ft. SERVICE CEILING: 15,200 ft.  
LENGTH: 35 ft.  
MAX. SPEED: 183 m. p. h. at 12,000 ft.

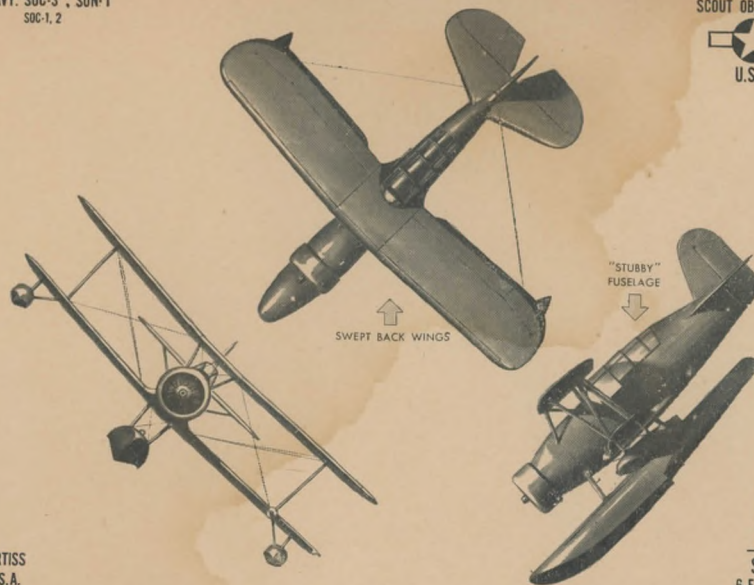
**RESTRICTED**





NAVY: SOC-3 ; SON-1  
SOC-1, 2

SCOUT OBSERVATION



CURTISS  
U.S.A.

SCALE  
6-FOOT MAN

**DISTINGUISHING FEATURES:** Single radial engine biplane with large single float. Equal-span rectangular wings have rounded tips and are slightly swept back and staggered. N-shaped struts and small wing-tip floats. Short deep fuselage with large cockpit enclosure faired abruptly at the rear. Large tailplane has tapered leading edge, rounded tips and very large cut-out in trailing edge. Single fin and rudder has vertical trailing edge, tapered leading edge, and rounded tip.

**INTEREST:** Although obsolete, this plane is still used on many battleships and cruisers for spotting gunfire and for scouting purposes. It is sturdily built for catapult take-offs and landings in rough weather. Its slow speed and ease of handling make it ideally suited for spotting.

NOV. 1923  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# CURTISS SOC (Seaplane)



SPAN: 36 ft.

LENGTH: 31 ft. 9 in.

MAX. SPEED: 162 m. p. h. at 800 ft.

SERVICE CEILING:  
13,300 ft.

**RESTRICTED**



A



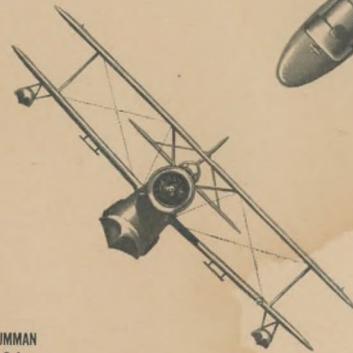
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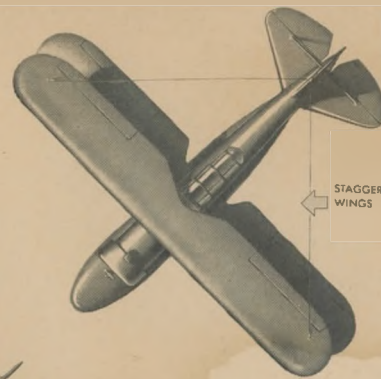
C



NAVY: J2F-5  
J2F series  
ARMY: OA-12



GRUMMAN  
U.S.A.



STAGGERED  
WINGS

INTEGRAL FLOAT-  
AND FUSELAGE



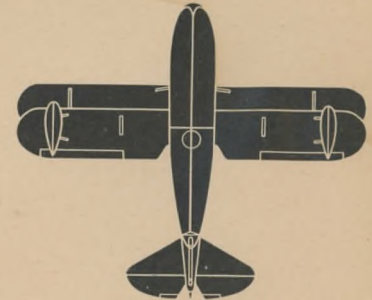
**DISTINGUISHING FEATURES:** Single radial engine biplane. Large single float faired into underside of fuselage giving a heavy squat appearance. Straight, staggered, equal-span wings have rounded tips. N-strut bracing and small fixed wing-tip floats. Unfaired cockpit enclosure. Round, tapered fin and rudder. Horizontal tailplane sharply tapered on leading edge with small curved tips, curved trailing edge and cut-out in center.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** This odd-looking amphibian floatplane has been a standard utility plane in the Navy since 1937. It is used aboard battleships and cruisers as a "Command" plane and can also be used for photographic work.

SUPPLEMENT ONE WAR DEPARTMENT FM 90-100  
NAVY DEPARTMENT BUAE-3

## DUCK J2F



SPAN: 39 ft.  
LENGTH: 34 ft.  
MAX. SPEED: 176 m. p. h. at 3,200 ft.

SERVICE CEILING:  
18,900 ft.

**RESTRICTED**



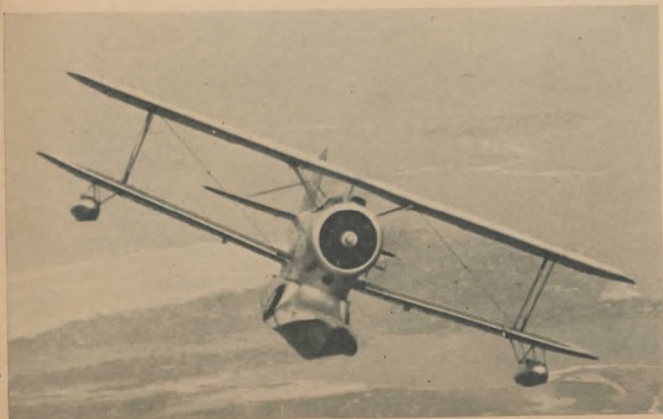
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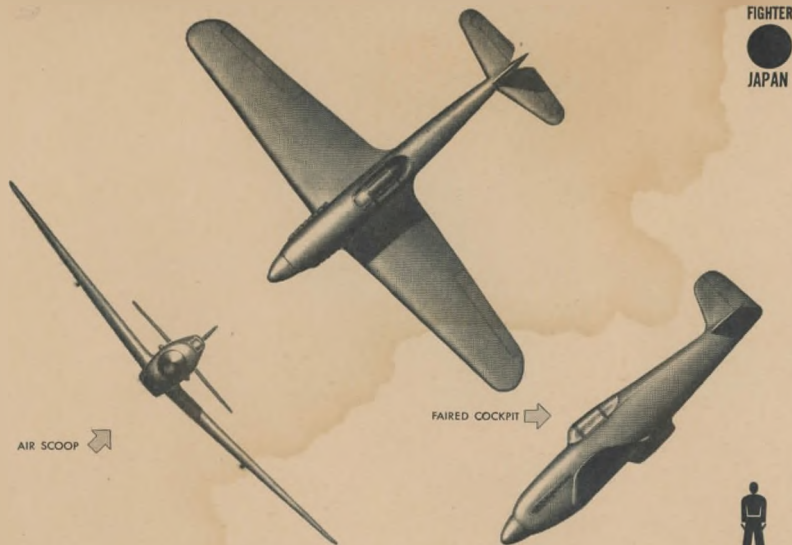


B



D





FIGHTER  
JAPAN

JAPAN

**DISTINGUISHING FEATURES:** Single inline engine, low-wing monoplane. Wings have dihedral from roots and moderate taper on both edges. Long nose. Small cockpit faired into the fuselage. Large air scoop extends beyond trailing edge of wing. Bell-shaped fin and rudder. Tailplane has rounded tips, tapered leading edge and V cut-out in the elevator.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** Fuselage and tail assembly of this single-seat Jap fighter are similar to the He 113. Wings longer and narrower. For the first time, armor plate placed behind the pilot was found in a Jap fighter. Power plant is a 12-cylinder 60° V-type liquid-cooled engine. Est. hp. is 1,060 at 15,000 ft. Fuel tanks, in fuselage and wing roots, are leak-proof. Armament: 2 x 12.7 mm. machine guns firing through propeller, 2 x 7.7 mm. machine guns in wings. Provision is made for cannon installation in propeller hub.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE R 3

# TONY



**SPAN:** 38 ft. 5 in.

**LENGTH:** 30 ft.

**ESTIMATED SPEED:** 363 m. p. h. at 17,000 ft.

**SERVICE CEILING:**  
35,700 ft.

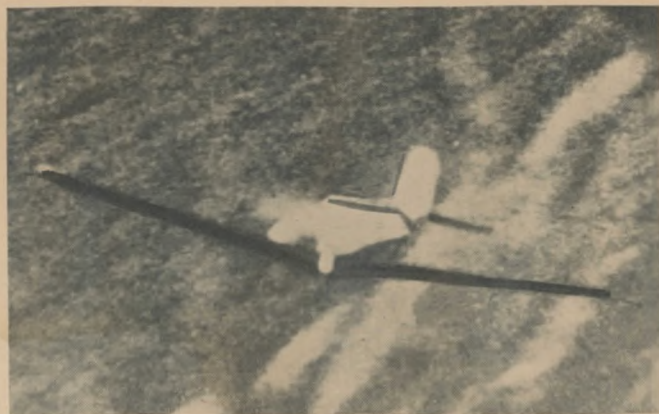
**RESTRICTED**



A



C

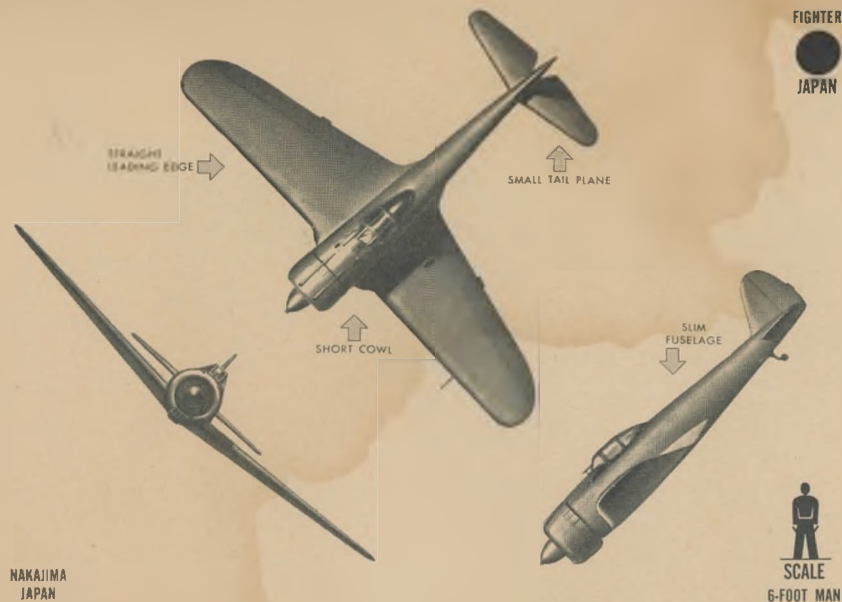


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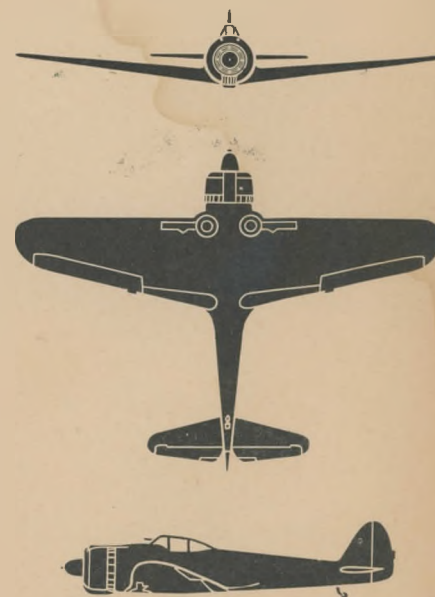
**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. Wing has straight leading edge, tapered trailing edge, and rounded tips. Short, blunt nose with large spinner. Fuselage narrow aft of wings. Small unfaired cockpit over wing. Tailplane tapers to rounded tips and has a V-shaped cut-out to allow for rudder movement. Single fin and rudder has tapered leading edge and rounded trailing edge. Fixed tail wheel.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** Oscar, an improved version of Nate, Type 97 fighter, has been in action in the Southwest Pacific, China, and Burma theaters. This plane is the first Jap fighter on which an attempt has been made to provide self-sealing fuel tanks. An improved version, Oscar Mark II, has recently become operational. It is fitted with a more powerful engine with a 2-speed supercharger, which has increased the maximum speed to 342 m. p. h. at 17,500 feet and the service ceiling to 38,400 feet.

SUPPLEMENT ONE [ WAR DEPARTMENT FW 30-30  
NAVY DEPARTMENT BUAE 2

# OSCAR



SPAN: 37 ft. 7 in.

LENGTH: 28 ft. 7 in.

MAX. SPEED: 317 m. p. h. at 16,000 ft.

SERVICE CEILING:  
37,500 ft.

**RESTRICTED**



A



C



D



B



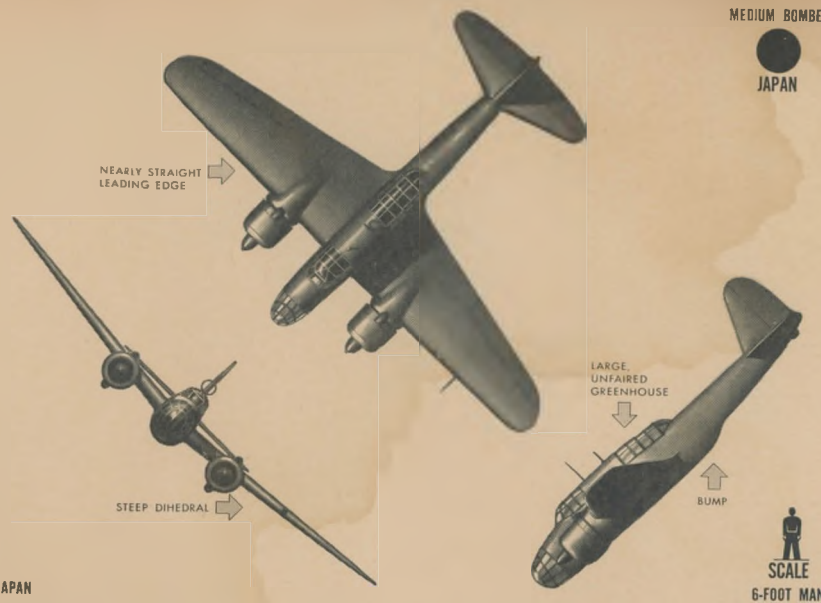
E



MEDIUM BOMBER



# LILY



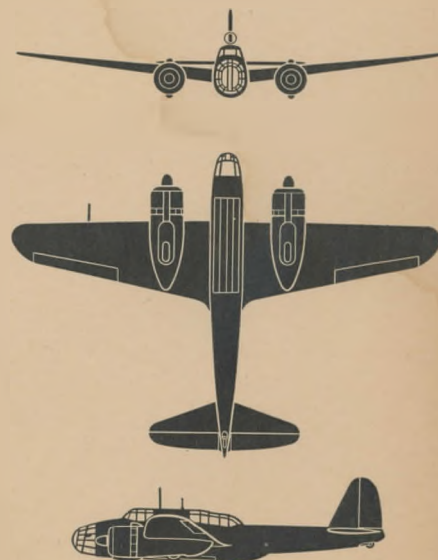
JAPAN

**DISTINGUISHING FEATURES:** Twin-engine, mid-wing monoplane. Wings are tapered, more on trailing edge than on leading edge. Rounded wing tips. Engines are underslung. Slab-sided fuselage narrows abruptly aft of trailing edge of wing. Rounded nose extends beyond engines and fuselage is broken by large, unfaired greenhouse. Fin and rudder has tapered leading edge with rounded top and curved trailing edge. Tailplane has tapered leading edge, curved trailing edge, with sharply rounded tips.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** Lily is often referred to as the "Baltimore" type, since it bears a striking resemblance to the U. S. A-30 Martin "Baltimore" bomber. Carrying a crew of four, Lily is used as a bomber and for reconnaissance. The bomb load carried is 800 pounds stowed internally.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3



**SPAN:** 56 ft. 11 in.

**SERVICE CEILING:**

28,200 ft. with normal load.

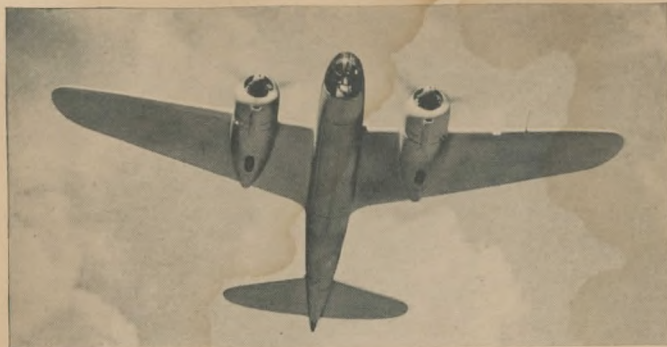
**LENGTH:** 47 ft. 3 in.

**ESTIMATED SPEED:** 278 m. p. h. at 10,000 ft.

**RESTRICTED**



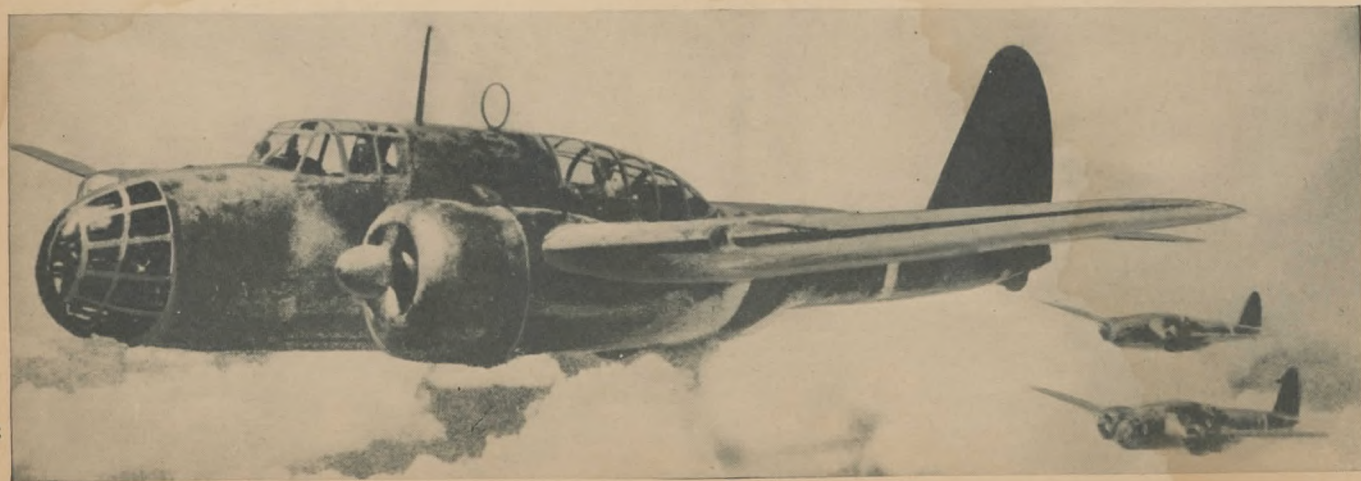
A



B



C





WING HAS WIDE ROOT  
AND EVEN TAPER

TRANSPORT

JAPAN

MITSUBISHI  
JAPAN

WHEELS  
EXTEND

SCALE  
6 FOOT MAN

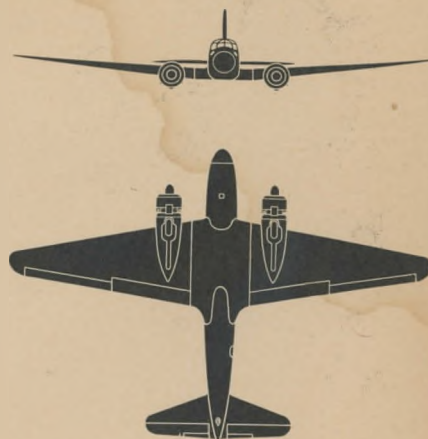
**DISTINGUISHING FEATURES:** Twin-engine, low-wing monoplane. Wing tapers sharply to rounded tips and has pronounced dihedral. Nose is long and sharply rounded. Fuselage smooth except for break at pilot's cockpit and tapers symmetrically to point at tail. Tail surfaces have pronounced taper on leading edge with rounded tips. Fixed tail wheel, retractable landing gear.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** This aircraft has been used in para-troop operations in the Southwest Pacific. It has a cruising range of 1,020 miles with normal fuel and cargo load at an average speed of 197 m. p. h. and at an altitude of 9,200 feet. It is a military version of the Mitsubishi commercial transport, type MC-20, for which sales were solicited in South America before the war.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# TOPSY



SPAN: 74 ft.

SERVICE CEILING:  
23,000 ft. with normal load

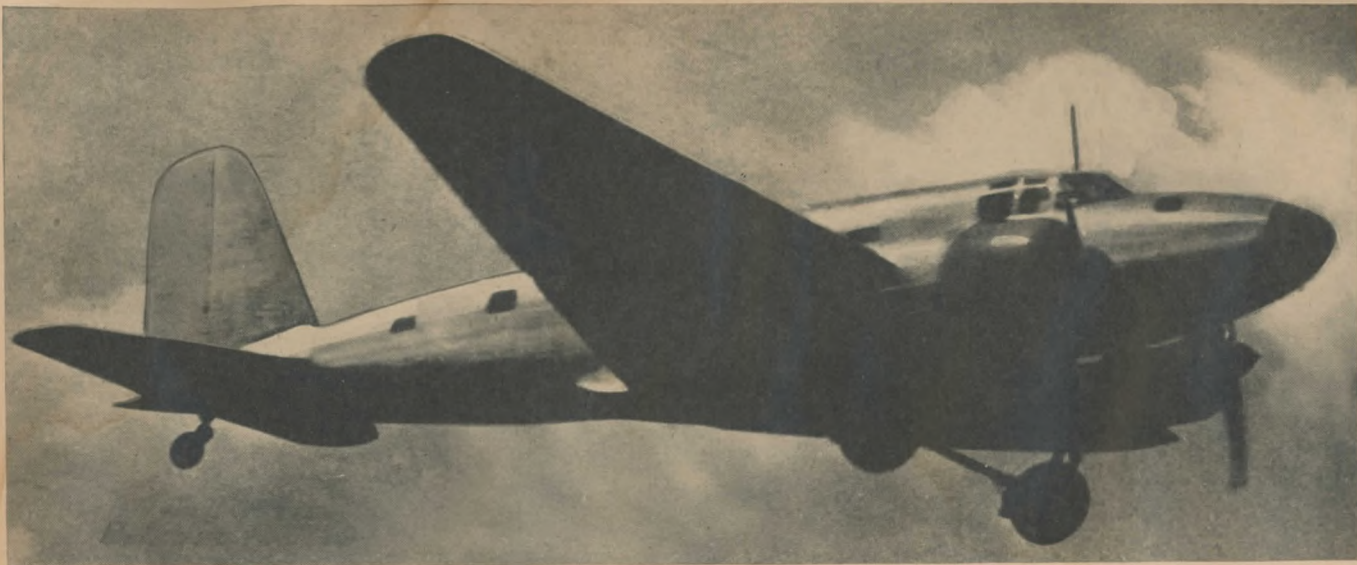
LENGTH: 25 ft. 8 in.

MAX. SPEED: 266 m. p. h. at 10,500 ft.

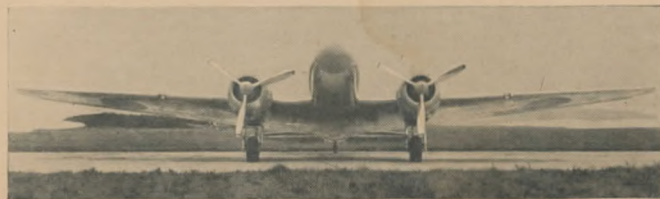
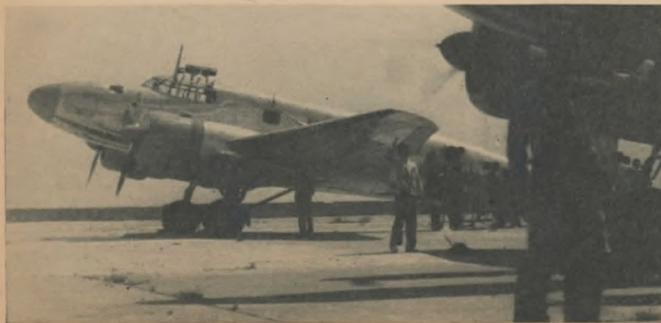
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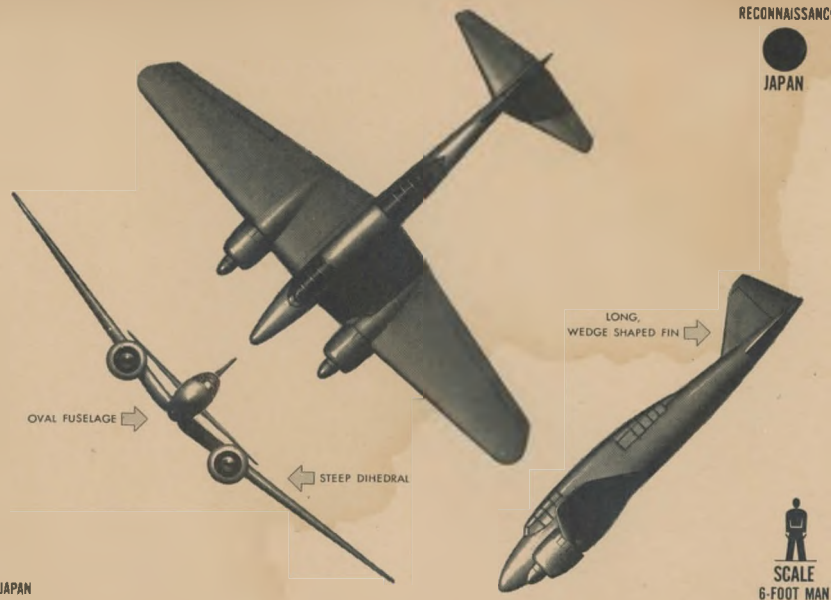
A



B



C



JAPAN

**DISTINGUISHING FEATURES:** Twin radial engine, low-wing monoplane. Tapered wing with raked tips. Deep, narrow, oval-shaped fuselage with pointed nose extending beyond nacelles. Long, raised canopy with unglazed center section over wing. Triangular-shaped fin and rudder, wide at base. Tailplane has marked taper on both edges, with small raked tips.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** This aircraft is used principally for special reconnaissance missions. Its range is estimated at 1,105 miles at normal cruising speed of 251 m. p. h. The power plant consists of two 14-cylinder air-cooled radial engines developing 1,030 hp. at 10,800 feet.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

# DINAH



**SPAN:** 50 ft. (est.)

**LENGTH:** 38 ft. (est.)

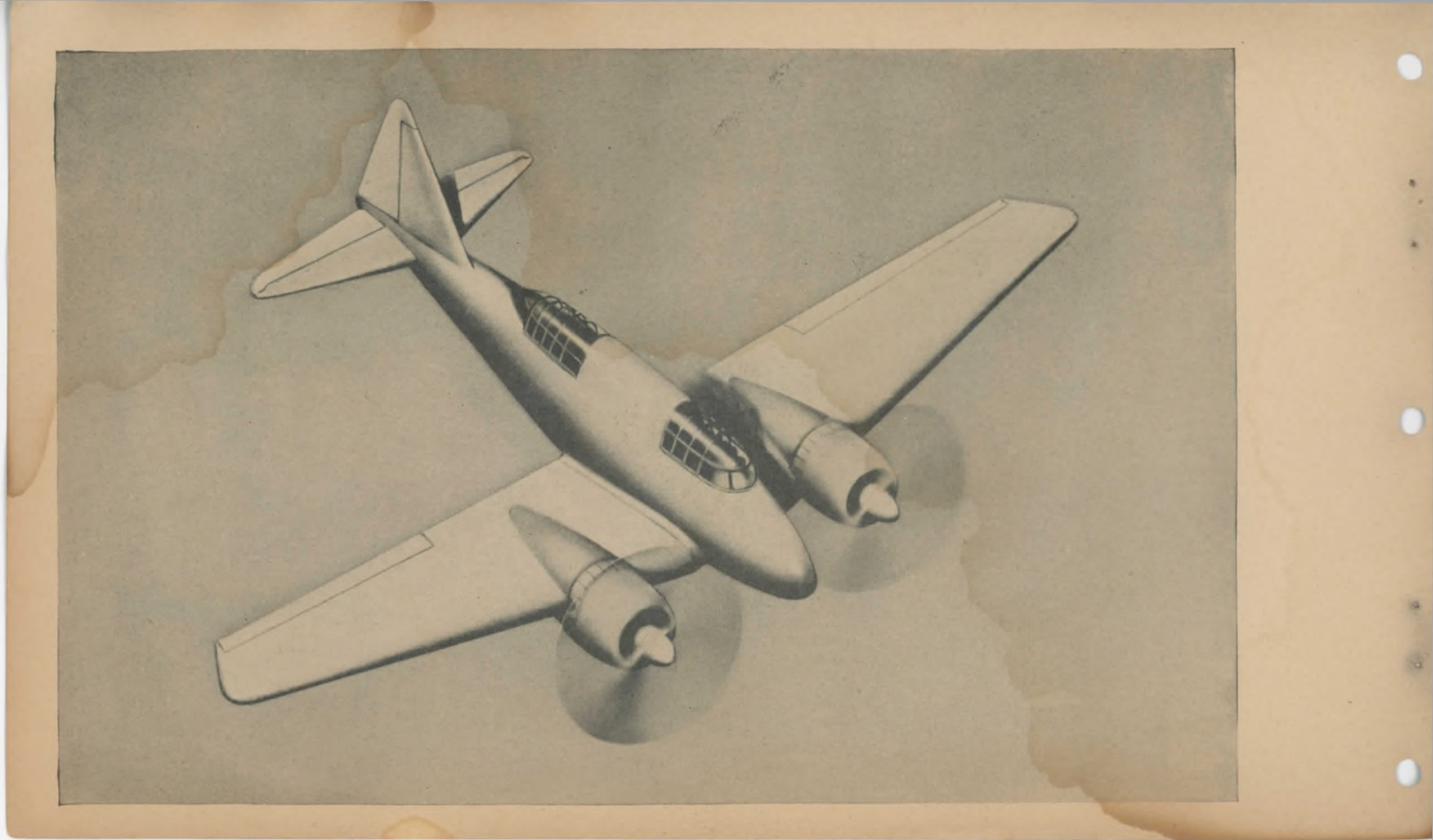
**MAX. SPEED:** 343 m. p. h. at 13,000 ft.

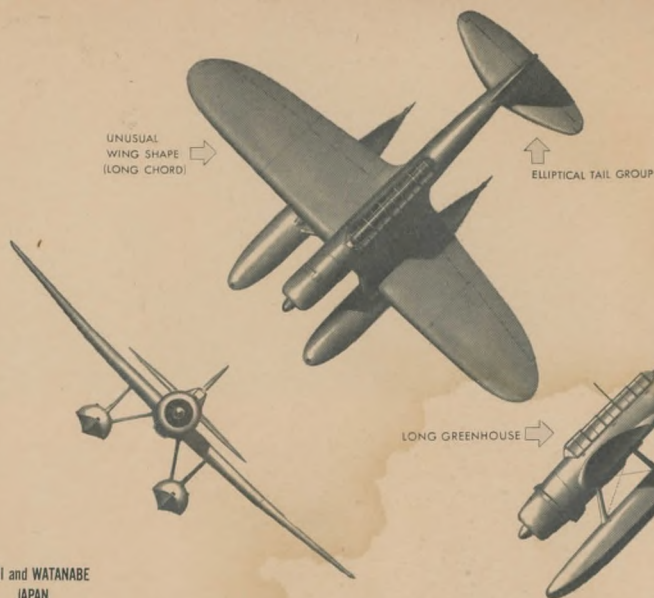
**SERVICE CEILING:**

34,700 ft.

**RESTRICTED**







AICHI and WATANABE  
JAPAN

RECONNAISSANCE  
BOMBER  
JAPAN

SCALE  
6-FOOT MAN

**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. Stubby wing with tip curves beginning well inboard. Long unfaired greenhouse. Large floats. High semi-elliptical fin and rudder. Tailplane has curved leading and trailing edges.

**INTEREST:** This plane when first reported was thought to be type 99 dive bomber "Val" equipped with floats. Recent evidence proves this supposition to have been incorrect. The long wing tip curves give the appearance of an elliptical wing. Recent reports state that Allied shipping has been attacked by this floatplane. Its bomb load is reported to be 4 x 60 kg. (132 lb.) bombs. Armament consists of 1 x 7.7-mm. free gun in the dorsal position.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

# JAKE



**SPAN:** 47 ft. 6 in.

**LENGTH:** 35 ft. 4 in.

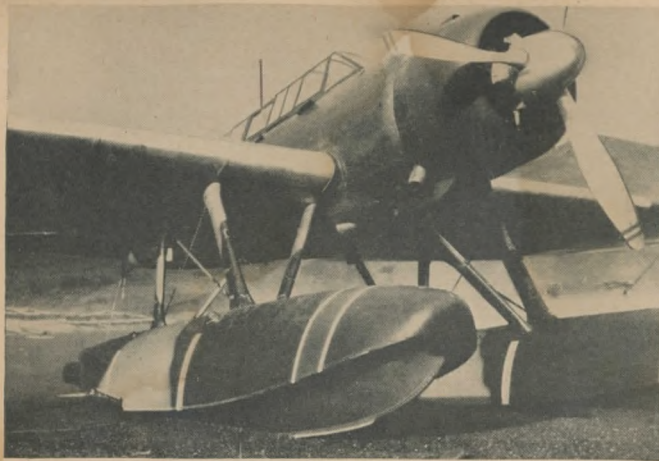
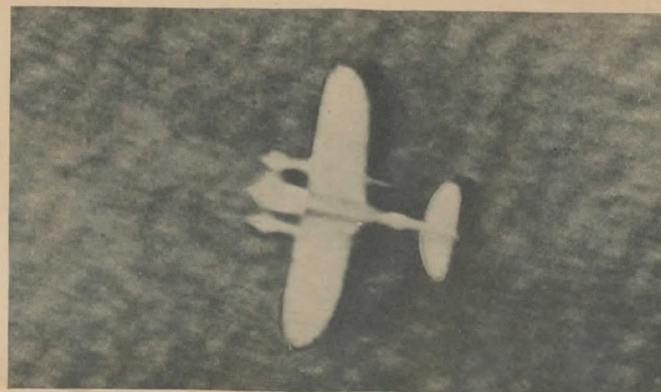
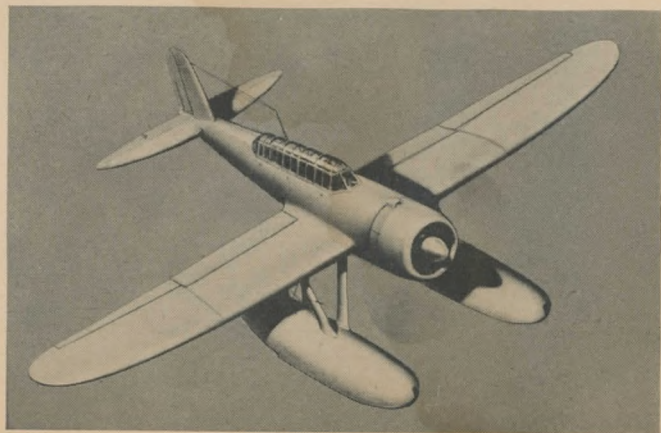
**MAX. SPEED:** 216 m. p. h. at 7,500 ft.

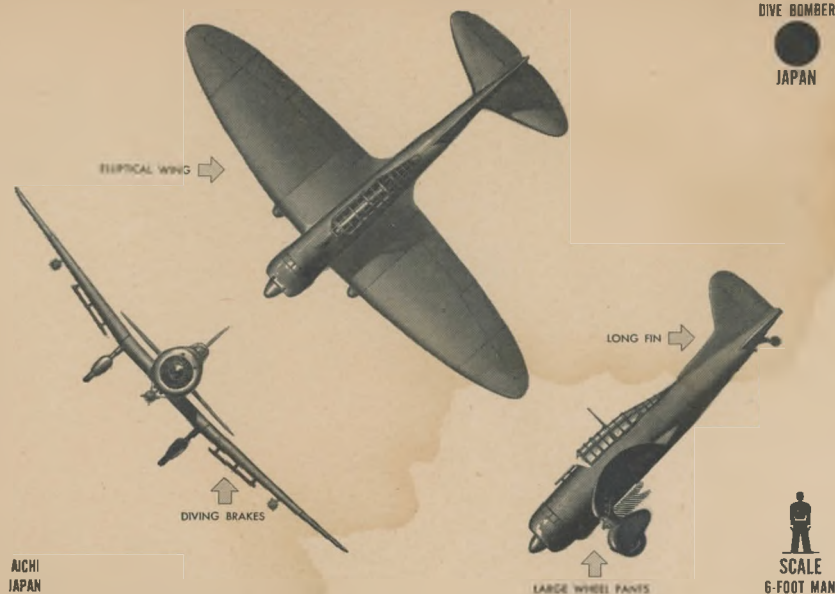
**SERVICE CEILING:**

24,400 ft.

**RESTRICTED**



**A****C****B****D**



AICHI  
JAPAN

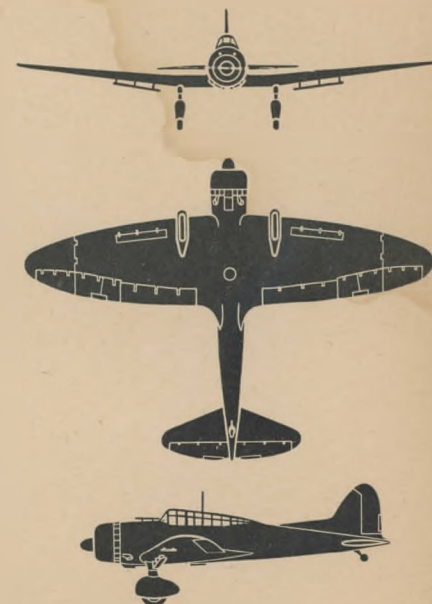
**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. Wings have marked dihedral outboard of center sections. Elliptical-shaped wings with rounded tips and fillets. Long cockpit enclosure centered above wings fairs smoothly into fuselage. Bell-shaped fin and rudder fairs forward into fuselage. Tailplane has elliptical trailing edge and tapered leading edge. Fixed landing gear with wheel pants.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** This second version of Val has a more powerful engine, faired cockpit enclosure, and narrower stabilizer. Armament consists of two 7.7-mm. machine guns in the top forward cowl and one 7.7-mm. flexible gun in the rear cockpit. Normal bomb load is 550 lb. Maximum bomb load is 1,050 lb. Val has been an effective but not a high performance dive bomber. Short dives at a 70° angle can be made. The customary angle is about 55°. No armor or self-sealing tanks have been found.

SUPPLEMENT ONE [WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

## VAL II



SPAN: 47 ft. 8 in.

LENGTH: 33 ft. 9 in.

MAX. SPEED: 254 m. p. h. at 13,000 ft.

SERVICE CEILING:  
29,800 ft.

RESTRICTED



A



C

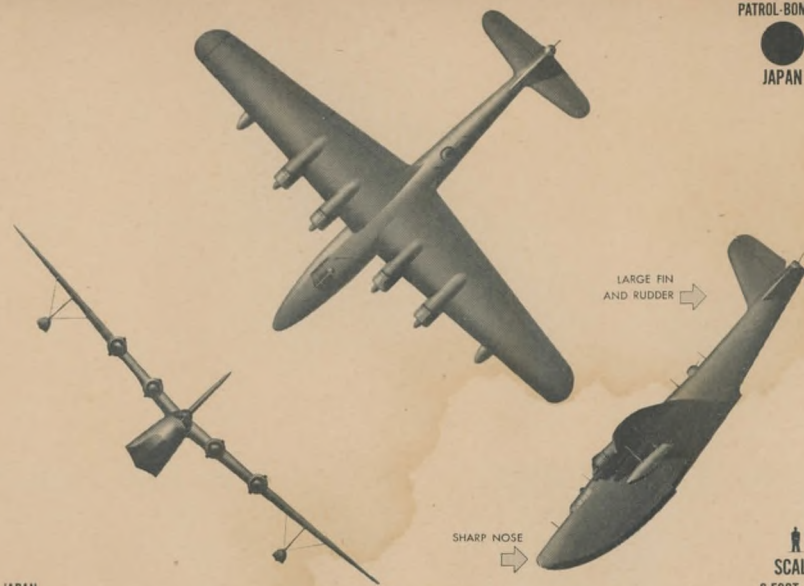


B



D





JAPAN

**DISTINGUISHING FEATURES:** Four radial engine, high-wing flying boat. Wing has marked taper from the roots. Trailing edge of wing tip curves sharply to small rounded point. Deep hull has a long nose tapering forward from leading edge of wing. Large high bell-shaped fin and rudder. Tailplane has tapered edges and rounded tips.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

PATROL-BOMBER



LARGE FIN  
AND RUDDER

SHARP NOSE

SCALE  
6-FOOT MAN

**INTEREST:** This flying boat is known by the code name of Emily and is one of the largest planes in the Japanese Naval Air Forces. U. S. planes on reconnaissance over Jap-held islands in the Southwest Pacific have reported this plane on several occasions in recent months. Reports indicate that it is operational in limited numbers and that it will be seen more and more frequently.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# EMILY



**SPAN:** 118 ft. (Approx.)  
**LENGTH:** 90 ft. (Approx.)  
**MAX. SPEED:**

**SERVICE CEILING:**

**RESTRICTED**



A



B



C

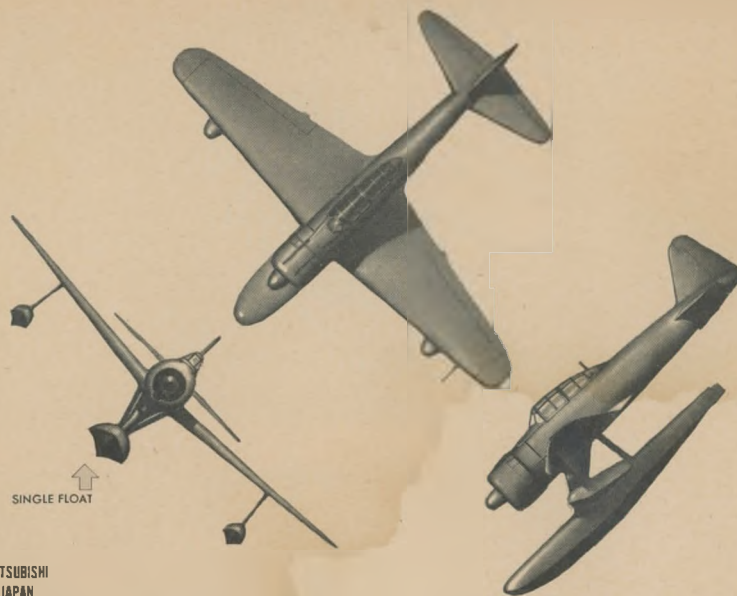


D



E





MITSUBISHI  
JAPAN

**DISTINGUISHING FEATURES:** Nearly the same as Zeke except for pontoon, wing-tip floats and rounded trailing edge of rudder. Radial engine, low-wing monoplane with single float. Wings have dihedral from the roots with nearly equal taper and rounded tips. Blunt nose with rather large spinner. Carburetor air scoop below cowl. Tapering fuselage. Cockpit canopy placed on top of fuselage. Tapered tailplane with round tips set forward of rudder. Tapered fin and rudder with trailing edge curved into fuselage at the bottom.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

FIGHTER  
JAPAN

SCALE  
6-FOOT MAN

**INTEREST:** The float plane version of the Zero, Rufe is also manufactured by Mitsubishi. The additional drag and weight of the floats are responsible for a decrease in speed of approximately 50 m. p. h. and some loss in maneuverability. This plane was extensively used by the Jap forces in the Aleutians and is in operation in the Southwest Pacific.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

## RUFE



**SPAN:** 39 ft. 5 in.

**LENGTH:** 33 ft. 10 in.

**APPROX. SPEED:** 278 m. p. h. at 16,000 ft.

**SERVICE CEILING:**

About 35,400 ft.

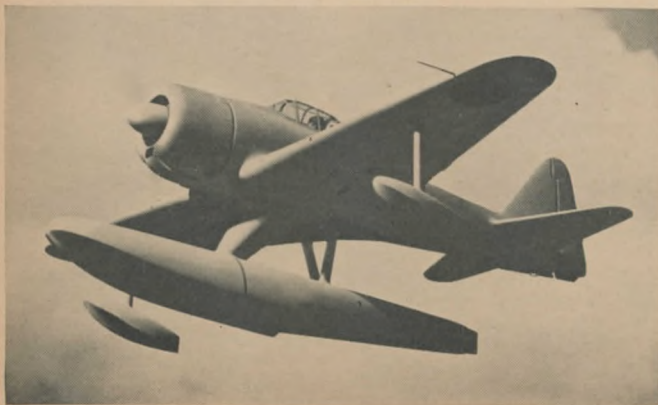
**RESTRICTED**



A



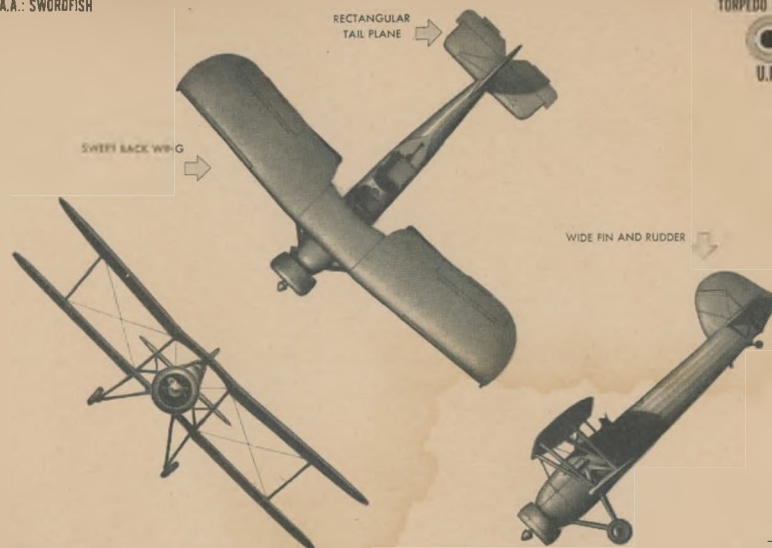
B



C



F.A.A.: SWORDFISH



FAIREY  
ENGLAND

**DISTINGUISHING FEATURES:** Single radial engine biplane. Wings have a slight stagger. Bottom wing is shorter and has no dihedral. Top wing has a swept-back appearance with large cut-out in the center. Prominent ring cowling. Semi-circular fin and rudder. Strut-braced tailplane has elevator with large cut-out in center. Elevator extends beyond horizontal stabilizer. Stabilizer has straight leading edge.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

TORPEDO BOMBER

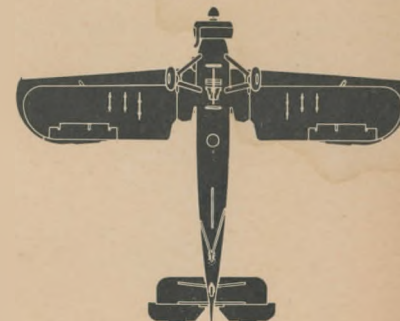


SCALE  
6-FOOT MAN

**INTEREST:** The Fairey Swordfish is used by the British Fleet Air Arm for torpedo, spotter, and reconnaissance work. It is sometimes used with twin floats for catapult operations from cruisers and battleships. The carrier version with fixed landing gear is used more extensively. It has a fixed gun firing forward. Older models of this plane have open cockpits for the pilot, observer, and gunner behind the wings. Recent models, however, have a large enclosed cockpit.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# SWORDFISH



SPAN: 45 ft. 6 in.

LENGTH: 36 ft. 4 in.

MAX. SPEED: 144 m. p. h. at 5,500 ft.

SERVICE CEILING:  
17,000 ft.

**RESTRICTED**



A



C



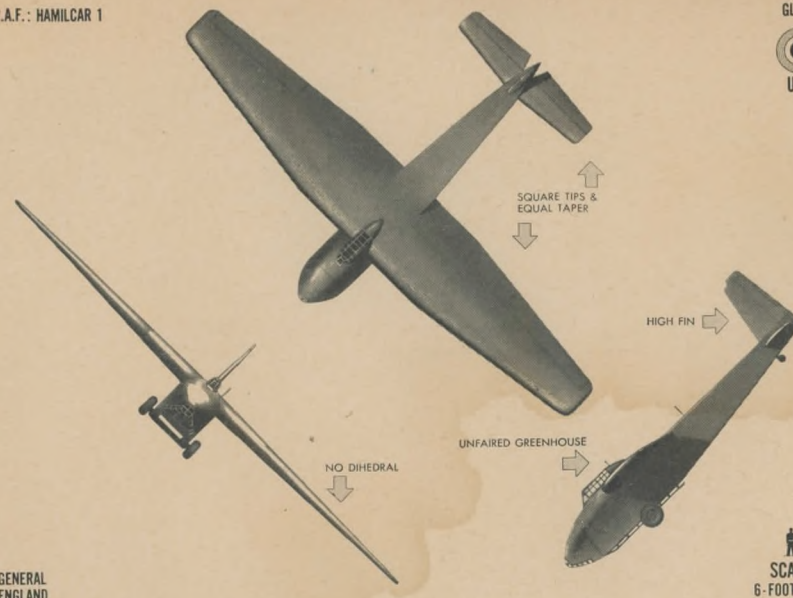
B



D



R.A.F.: HAMILCAR 1



GENERAL  
ENGLAND

**DISTINGUISHING FEATURES:** High-wing monoplane, no dihedral. Wings have straight center section, then equal taper to square-cut tips. Large rounded nose. Box-like fuselage tapering aft of the wings. Prominent unfaired cockpit. Square-cut, tapered tailplane with V cut-out. Very tall, tapered, square-cut single fin and rudder.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

GLIDER



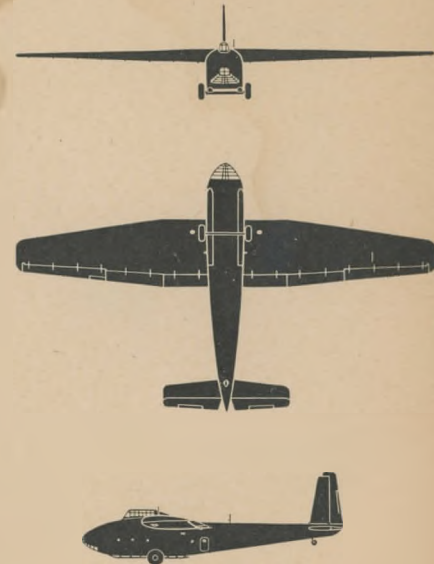
U.K.

SCALE  
6-FOOT MAN

**INTEREST:** The Hamilcar is the largest of the British troop and cargo carrying gliders. As in nearly all of the troop gliders, the landing gear is jettisonable. It is nearly always towed by a Halifax, but can be towed by the Stirling or Lancaster.

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

# HAMILCAR



SPAN: 110 ft.  
LENGTH: 68 ft.  
NORMAL TOWING SPEED:

SERVICE CEILING:

RESTRICTED



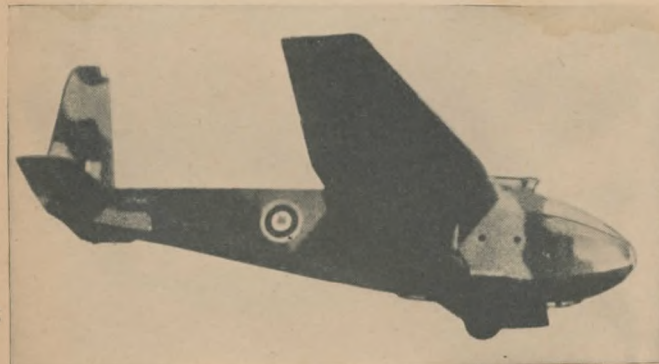
A



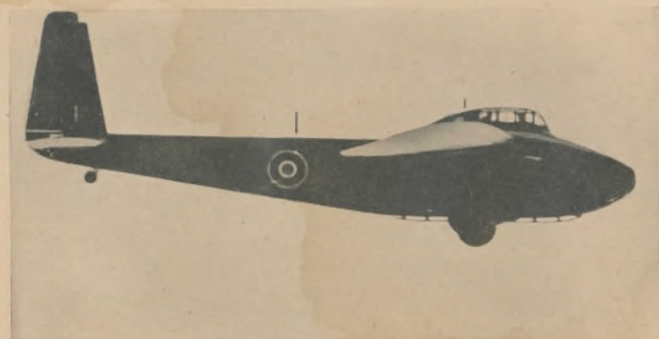
C



B



D

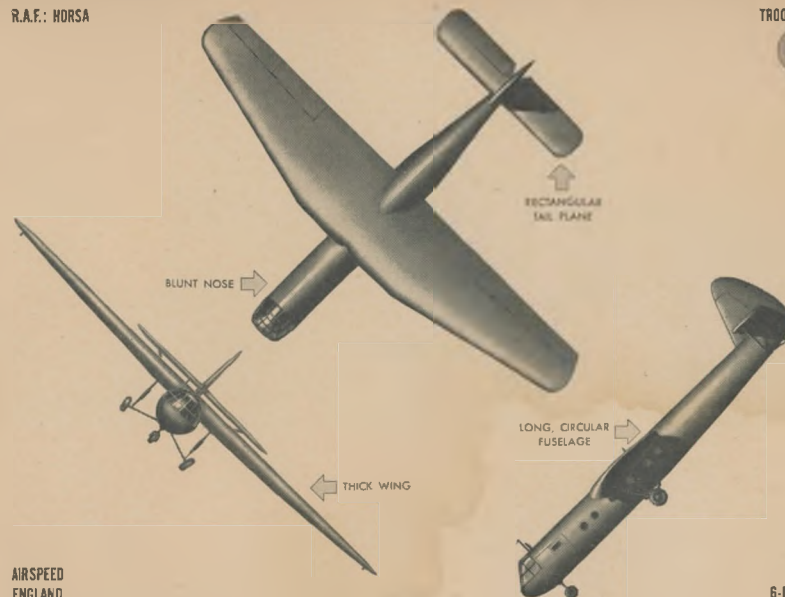


R.A.F.: Horsa

TROOP GLIDER



U.K.



AIRSPEED  
ENGLAND

**DISTINGUISHING FEATURES:** High-wing monoplane. Cylindrical fuselage with very long, partially glazed nose. Wing tapers on leading edge outboard of rectangular center section. Blunt wing tips. No dihedral. Straight fuselage from nose to trailing edge of wing, tapered from there to tail. Rectangular horizontal tailplane mounted above fuselage. High, pointed single fin and rudder with curved trailing edge. Fixed tricycle landing gear; main gear may be jettisoned.

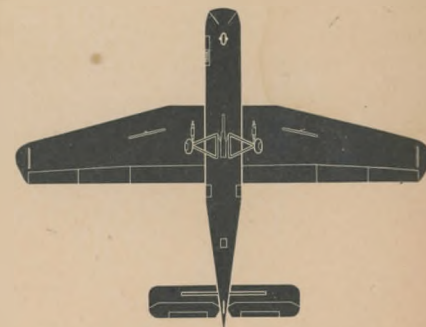
NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** The Horsa is one of Britain's standard troop-carrying gliders. Built mainly of wood, it is notable for being the first craft of its kind to be fitted with a tricycle landing gear. The wheels can be jettisoned after take-off and the glider landed on its skids. This would be done in an actual airborne attack to shorten the landing. Ungainly in appearance, the Horsa pairs well with its tug, the Whitley.

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

SCALE  
6-FOOT MAN

# HORSA



SPAN: 88 ft.

LENGTH: 67 ft.

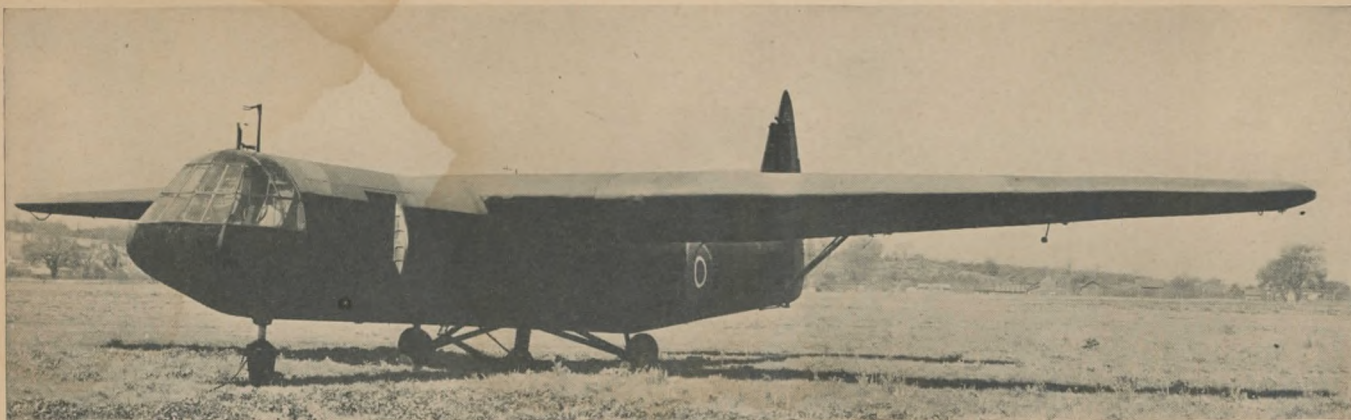
NORMAL TOWING SPEED:

SERVICE CEILING:

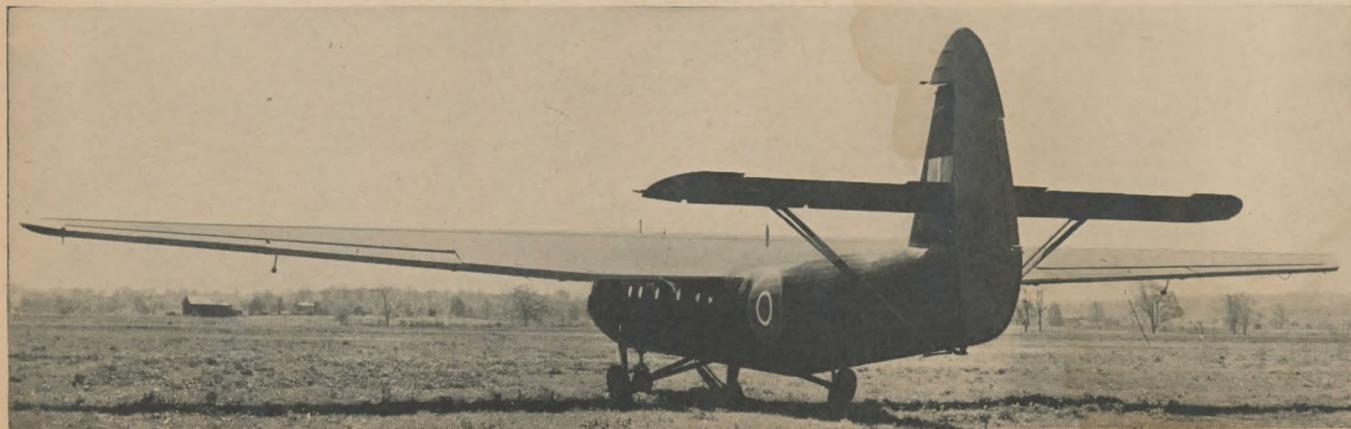
RESTRICTED



A



B



R.A.F.: HOTSPUR II

TROOP GLIDER



NARROW WING  
SQUARE TIPS

TALL NARROW  
FIN

← OVAL FUSELAGE

↑  
LANDING GEAR  
JETTISONABLE  
AFTER TAKEOFF

GENERAL  
ENGLAND

SCALE  
6 FOOT MAN

**DISTINGUISHING FEATURES:** Mid-wing mono-plane with slight, equal taper and squarish tips. Long, pointed nose with raised cockpit enclosure. Oval-shaped fuselage, very thin near tailplane. High, narrow fin and rudder, equally tapered. Slightly tapered tailplane with round tips.

**INTEREST:** The Hotspur is the standard trainer in the British Glider Pilot regiment. It is an eight-seat troop carrier and has a twin-wheel landing gear which can be jettisoned after take-off. The raised cockpit canopy gives the pilot a good view to the sides and forward.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# HOTSPUR II



SPAN: 45 ft. 11 in.

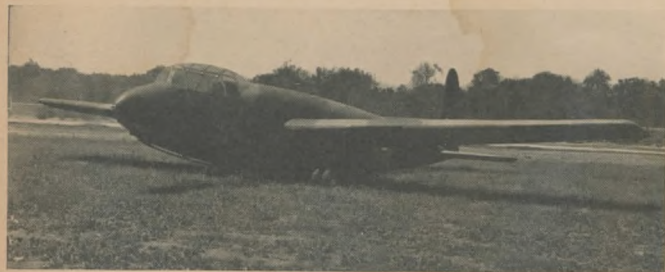
LENGTH: 39 ft. 4 in.

NORMAL TOWING SPEED: 150 m. p. h.

SERVICE CEILING:

**RESTRICTED**



**A****B****C****D****E**

F.A.A.: FULMAR II

FIGHTER



# FULMAR

UNIFORM TAPER

STEEP  
DIHEDRAL

STRAIGHT BACK

SCOOP

SCALE  
6 FOOT MAN

FAIREY  
ENGLAND

**DISTINGUISHING FEATURES:** Low-wing monoplane with single inline engine. Wings are equi-tapered with rounded tips. Fuselage is long and narrow, with long cockpit canopy fairing into fuselage. Airscoop beneath nose. Wide fin and rudder with pronounced taper on leading edge. Tailplane sets low and well forward on the fuselage and is similar in shape to wing.

**INTEREST:** An eight-gun carrier-based fighter of the British Fleet Air Arm, the Fulmar has a greater range than many land fighters with similar armament. This is an important advantage, since frequent landings on carriers for purposes of refueling are a distinct nuisance. Although this plane is now obsolescent, it has done good work in the Mediterranean in clashes with Italian planes.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE | WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3



SPAN: 46 ft.

LENGTH: 40 ft. 4 in.

APPROX. SPEED: 250 m. p. h. at 10,000 ft.

SERVICE CEILING:

23,000 ft.

**RESTRICTED**



A



C



B



D



# ANSON



**SPAN:** 56 ft. 6 in.  
**LENGTH:** 42 ft. 3 in.  
**MAX. SPEED:** 188 m. p. h.

**SERVICE CEILING:**  
 19,000 ft.

NOV. 1943  
 FROM DATA CURRENTLY AVAILABLE

**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. Thick, inverted gull wing with equal taper and squarish clipped tips. Prominent cockpit canopy faired into fuselage. Bell-shaped fin and rudder. Tailplane has straight edges with round tips.

**INTEREST:** The Master was first developed in 1936. It was adopted officially as the British Advanced Trainer when the air expansion program began. It has the typical Miles construction consisting of wood with plywood skin and thick wing section. The Master I was powered with a Rolls Royce Kestrel-XXX liquid-cooled engine. The Master II had a Bristol Mercury 20 radial engine. The present Master III is powered with a Pratt & Whitney Wasp radial engine. The Master is the only British aircraft in which the landing gear retracts backward and turns to lie flat in the wings. It is extremely maneuverable.

**DISTINGUISHING FEATURES:** Twin radial engine, low-wing monoplane. Wings have equal taper with round tips, and large fillet at roots. Long glazed cabin enclosure. Tapered tailplane with sharp tips. Low, rounded single fin and rudder.

**INTEREST:** This aircraft is now being built in Canada by Federal Aircraft Limited, and is used as an advanced trainer. Its duties consist of twin-engine training, navigational, gunnery, and bombing training. It is also used for light communications work and pilot taxi duties. During the early part of the war it carried on some operational work and scored a number of victories over faster and more heavily armed enemy aircraft.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
 NAVY DEPARTMENT BUAER 3

# MASTER III



**SPAN:** 39 ft.  
**LENGTH:** 29 ft. 6 in.  
**MAX. SPEED:**

**SERVICE CEILING:**

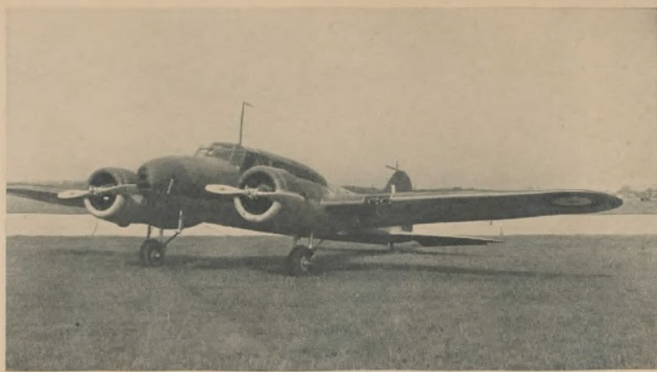
**RESTRICTED**



A



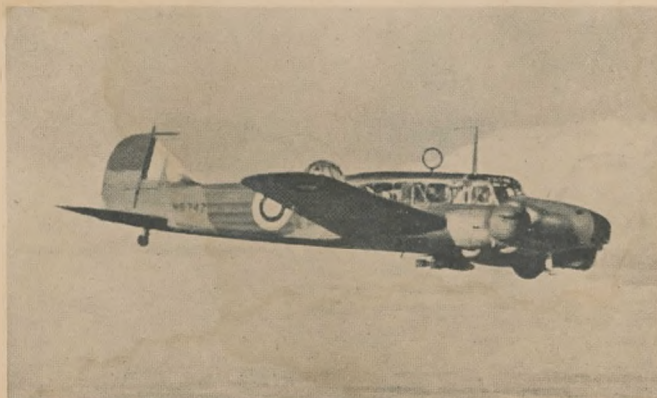
C



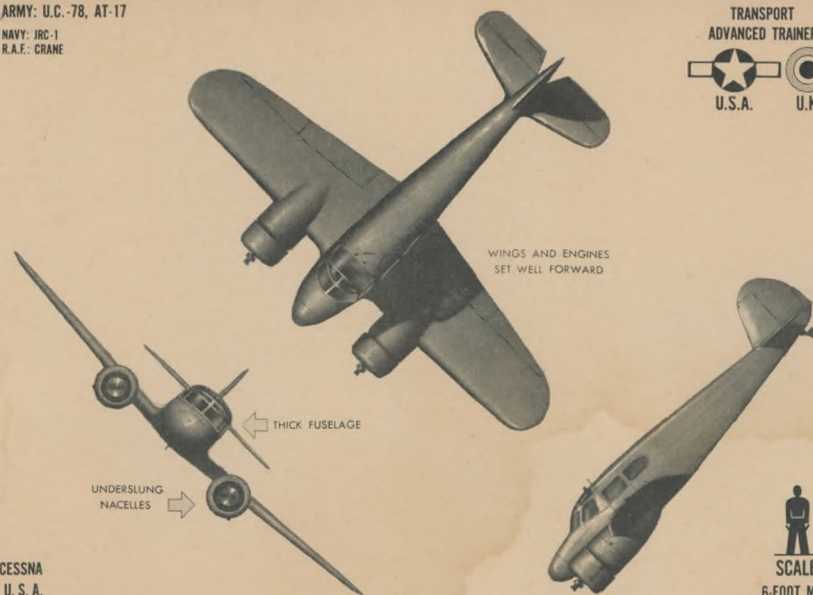
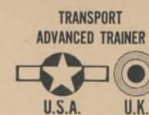
B



D



ARMY: U.C.-78, AT-17  
NAVY: JRC-1  
R.A.F.: CRANE



CESSNA  
U. S. A.

**DISTINGUISHING FEATURES:** Twin radial engine, low-wing monoplane. Moderate taper to wings. Rounded tips. Engines are underslung. Short-nose fuselage has large faired cabin and tapers sharply rearward. Bell-shaped single fin and rudder. Taper on leading edge of tailplane only.

**INTEREST:** The Bobcat has been used as an advanced trainer under the Joint Air Training Plan. It differs only slightly from the Cessna T-50 five-seat commercial cabin plane. It is used by the USAAF as a light transport under the designation of UC-78. As a trainer it is known as the AT-17. This aircraft is also used by the Royal Canadian Air Force, where it is referred to as the Crane. Both Canadian and U.S. models are fitted with two 225-hp. Jacobs radial engines.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAE 3

# BOBCAT, UC-78; AT-17



**SPAN:** 41 ft. 11 in. **SERVICE CEILING:**  
**LENGTH:** 32 ft. 9 in.  
**MAX. SPEED:** 195 m. p. h. at Sea Level

**RESTRICTED**

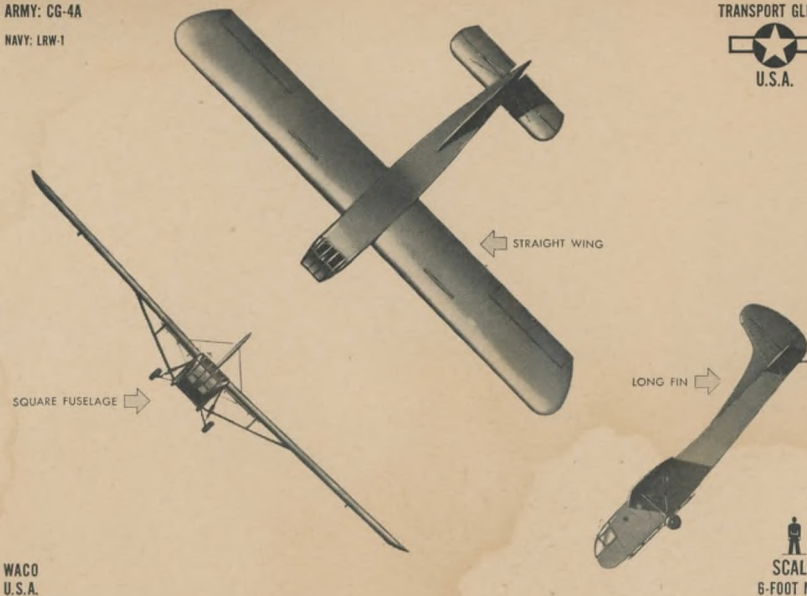




ARMY: CG-4A

NAVY: LRW-1

TRANSPORT GLIDER



WACO  
U.S.A.

**DISTINGUISHING FEATURES:** Long straight wing with raked tips and V struts. Wide, blunt, half-glazed nose. Rectangular-shaped fuselage tapers aft of wing. High fin and rudder with large fairing sweeping forward into fuselage. Rectangular tailplane with raked tips.

**INTEREST:** Extensive use is made of non-priority materials in the construction of this 15-place glider. It is a Waco design and is being made by several manufacturers. The CG-4A has excellent handling characteristics and was the first glider to be towed across the Atlantic. The C-47 "Skytrain" is often used as its tug.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# CG-4A



**SPAN:** 83 ft. 8 in.

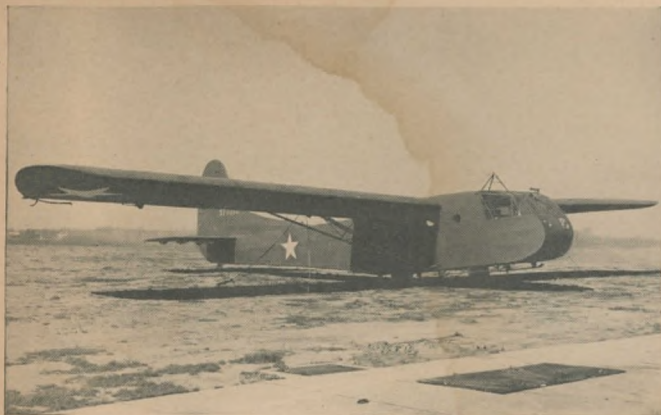
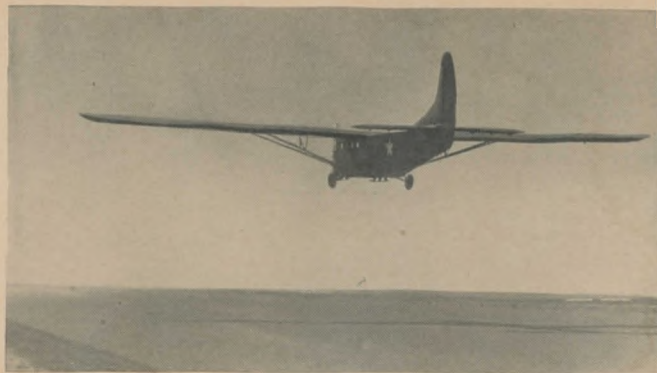
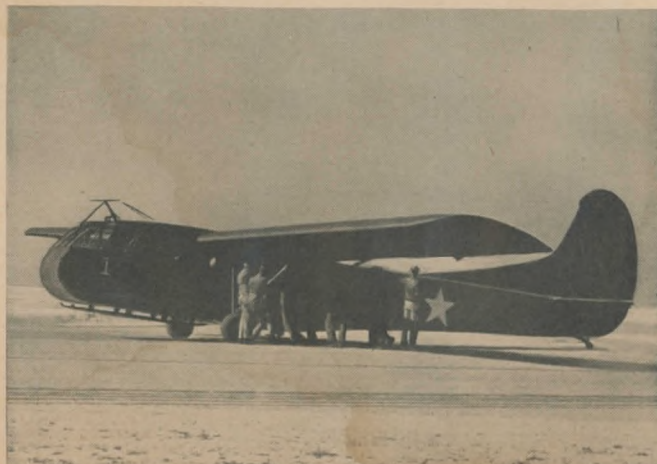
**LENGTH:** 48 ft. 3 in.

**NORMAL TOWING SPEED:** 150 m. p. h.

**SERVICE CEILING:**

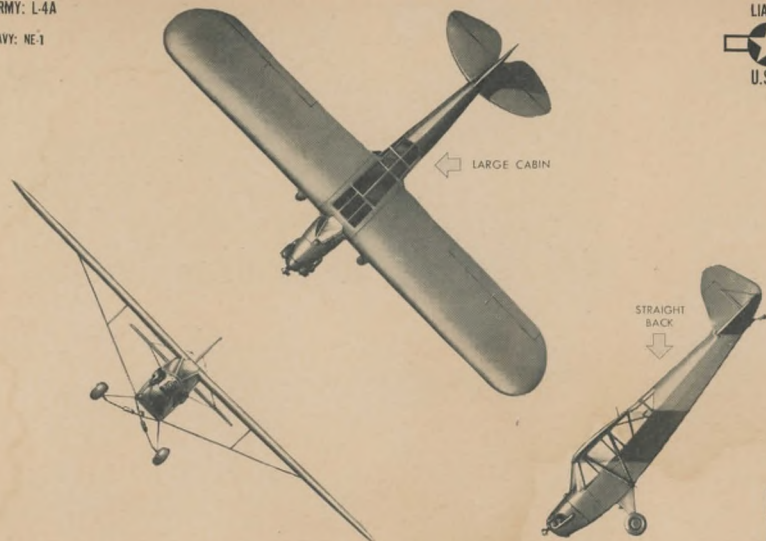
**RESTRICTED**



**A****C****B****D**

ARMY: L-4A

NAVY: NE-1



PIPER  
U.S.A.

**DISTINGUISHING FEATURES:** Single-engine, high-wing monoplane. Large straight wing with rounded tips and V-strut bracing. Blunt nose with uncowed engine. Large glazed cockpit enclosure open through center of wing. Fixed landing gear with exposed shock pads. Angular-shaped fin and rudder with broad rounded top. Elliptical-shaped tailplane has large V-cut-out.

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

**INTEREST:** This type, one of the best-known light airplanes, was tested in maneuvers and found capable of performing valuable work in artillery observation, transport of personnel, and light communications. It has a quick take-off and lands at approximately 35 m. p. h. Like all light airplanes, caution must be used in landing this type of craft in a high wind. Under suitable flying conditions this airplane can be operated from the smallest fields and roads.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
NAVY DEPARTMENT BUAER 3

# PIPER GRASSHOPPER



**SPAN:** 35 ft. 3 in.

**LENGTH:** 22 ft. 5 in.

**MAX. SPEED:** 83 m. p. h. at Sea Level

**SERVICE CEILING:**

**RESTRICTED**



A



C



D



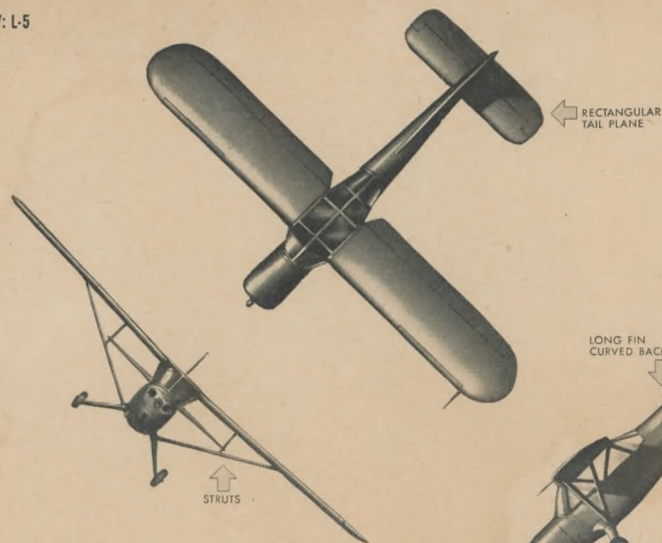
B



E



ARMY: L-5



STINSON  
U.S.A.

**DISTINGUISHING FEATURES:** High-wing single-engine monoplane. Straight wing with rounded tips and V struts. Large cockpit enclosure open through wings. Rocker-shaped fuselage. Fixed landing gear. High fin and rudder with rounded top and sweeping fairing into fuselage. Rectangular tailplane with rounded corners.

**INTEREST:** Powered with a 190-hp. Lycoming air-cooled engine, this development from the original Stinson 105 makes a valuable contribution for light communications and reconnaissance work. It has a maximum range of 506 miles at 112 m. p. h. This airplane can take off from a hard clay runway and clear a 50-foot obstruction in 633 feet. This performance is only exceeded by the L-1 Vigilant.

SUPPLEMENT ONE [WAR DEPARTMENT FM 20-20  
NAVY DEPARTMENT BUAE 5

NOV. 1943  
FROM DATA CURRENTLY AVAILABLE

## SENTINEL L-5



**SPAN:** 34 ft.  
**LENGTH:** 24 ft. 1 in.  
**APPROX. SPEED:** 128 m. p. h. at Sea Level

**SERVICE CEILING:**

**RESTRICTED**



A



B



C



D

## NAVIGATOR AT-7, 11



**SPAN:** 47 ft. 8 in.      **SERVICE CEILING:**  
**LENGTH:** 34 ft. 3 in.  
**APPROX. SPEED:** 224 m. p. h. at 5,000 ft.

NOV. 1943  
 FROM DATA CURRENTLY AVAILABLE

**DISTINGUISHING FEATURES:** Single radial engine, low-wing monoplane. Wings have equal taper with round tips. Long, prominent cockpit canopy. Fuselage bulges down beneath wing and nose extends well forward. Fixed, single-strut landing gear near leading edge of wing. High, narrow, triangular fin and rudder with round top. Tapered tailplane with round tips.

**INTEREST:** The Valiant is the latest in a long series of Vultee-built basic trainers. Powered with a 450-hp. radial engine and weighing over 4,000 lb., this basic trainer gives the student his first instruction on a heavier low-wing type. The power, speed, and general performance are such that the step from basic to advanced military types is not drastic. It has made a fine contribution in the training of a vast number of Allied pilots.

**DISTINGUISHING FEATURES:** Twin radial engine low-wing monoplane. Tapered wings with round tips and more pronounced taper on leading edge. Wide cabin-type fuselage with marked taper aft of wing. Twin outboard fins and rudders with rounded trailing edges and V-shaped leading edges. Tailplane has tapered leading edge and straight trailing edge.

**INTEREST:** This navigational trainer, designated SNB-2 by the Navy, is equipped for simultaneous training of three student navigators in celestial, dead reckoning, and radio navigation. The bomber trainer version, the AT-11 Kansas (Navy SNB-1), has a blunt glazed nose for a student bombardier. This versatile Beechcraft plane is also used as a light transport and for photographic work, designated respectively the C-45 Voyager (Navy JRB) and the F-2.

SUPPLEMENT ONE [ WAR DEPARTMENT FM 30-30  
 NAVY DEPARTMENT BUAER 3

## VALIANT BT-13, BT-15; SNV-1, 2



**SPAN:** 42 ft.      **SERVICE CEILING:**  
**LENGTH:** 28 ft. 7 in.  
**MAX. SPEED:** 166 m. p. h. at sea level

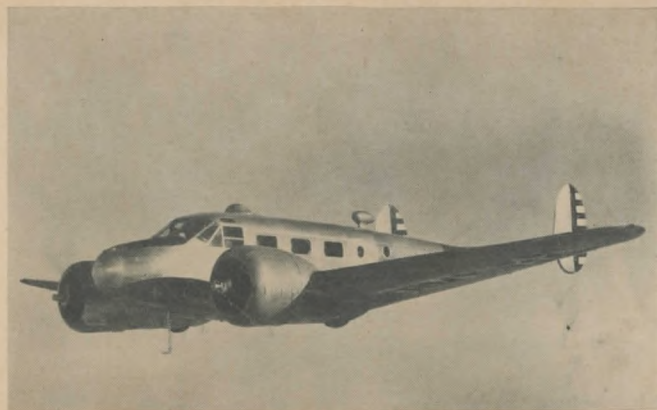
**RESTRICTED**



A



C



B



D

